

# TABLE OF CONTENTS

Section 1: In the Beginning	3
Introduction	3
About this Manual	3
The Civilopedia	3
System Requirements	4
Installation	4
Steam	5
The Tutorials	
Starting a Game	8
The Civilization V Web Site	
Saving and Loading a Game	
Game Difficulty	
The Options Screen	15
Section 2: The Basics	
Introduction	17
Civilization V Turn Structure	
Civilizations and Leaders	
Advisors	
The Interface	
Fog of War	
Game Info Screens Terrain	
Resources	
Units	
Movement	
Combat	
Barbarians and Ruins	
Cities	
Buildings	
Food and City Growth	
Culture	
Technology	
Workers and Improvements	
Worker Action List	90
Work Boats	
Social Policies	
City-States	
Great People	
Gold	
Happiness	
Golden Ages	109

Wonders	
Diplomacy	
Victory and Defeat	
Section 3: Advanced Rules 1	
Air Combat	
Nukes	
Unit List	
Unit Promotions	
Wonder List	
Building List	
Multiplayer Civilization V	91
Mods	94
Mods  ModBuddy and the World Builder SDK 1	95
Credits1	96
Charts and Tables2	203
Policies2	203
Terrain2	
Terrain Features2	
Keyboard Shortcuts2	
Units	
Buildings	
Wonders	
Projects	
Improvements	
Technologies2	
Product Support2	225
Limitea software warranty; License Adre	2-
Limited Software Warranty; License Agreement, and Information Use Disclosures2	



Click an image to enlarge it

Click to go to Previous Page Click to go back to Contents

Click to go to Next Page



# INTRODUCTION

Welcome to Sid Meier's Civilization V! In this game you take on the greatest leaders in world history in a battle of warfare, diplomacy, technology, culture and economics. There are many paths to choose from in Civ V: can you lead your people to a military, cultural, diplomatic or technological victory, or will you be crushed beneath your enemies' chariot wheels, just another forgotten ruler of a vanquished people?

Great ruler, your people look to you for guidance! Can you lead them on to greatness and build an empire to stand the test of time?

Good luck and enjoy!

# **About Civilization V**

Civilization V is the fifth version of the classic game first released in the early 1990s. It is the longest-lived and best world history computer simulation ever published, famous for its depth of play and uniquely addictive nature.

We trust that Civ V lives up to its predecessors. It features cool new combat and movement rules, updated economics and social policies, innovative modding and multiplayer features, and greatly enhanced artwork and audio. We hope you like it.

# ABOUT THIS MANUAL

The manual will tell you everything you need to know to play *Civilization V*. It is divided into three sections: "In the Beginning" (which you're now reading), "The Basics," which contains everything you need to start and enjoy a game (at least through the Industrial Age), and "Advanced Rules," which contains rules for air combat, nukes, multiplayer and scenario "modding," credits, tech support and the always-popular copyright info.

As always, we think that the best way to learn how to play *Civ V* is to check out the Tutorial, which is accessible from the Main Menu, or to jump right in and play, and refer to this manual and the in-game Civilopedia (see below) when you need to. You can, of course, read this fine document from cover to cover, but you really don't need to do so to play.

# THE CIVILOPEDIA

The Civilopedia is a fine in-game knowledge resource for Civ V. You can reach it by pressing F1 or by clicking on "HELP" on the top of the Main Screen.

The Civilopedia is broken into main sections, each of which is represented by a tab on the top edge of the screen. Click on a tab to go to that section, then find your specific topic in the left-hand navigation (nav) column.

The Game Concepts section of the Civilopedia contains a slightly condensed version of this manual broken into smaller chunks. This makes it somewhat harder to lose the manual or to spill diet soda on it.



# Minimum System Requirements:

Operating System: Windows XP SP3

**Processor:** Intel Core 2 Duo 1.8 GHZ or AMD Athlon X2 64 2.0 GHZ

Memory: 2 GB of RAM Hard Disk Space: 8 GB Free

**DVD-ROM** Required for disc-based installation

Video: 256 MB ATI HD2600 XT or better, 256 MB nVidia 7900 GS or better, or

Core i3 or better integrated graphics

**Sound:** DirectX® 9.0c-compatible sound card

**DirectX®** DirectX® version 9.0c

Internet Connection: Required for initial game validation and multiplayer games

### **Recommended System Requirements:**

Operating System: Windows Vista SP2 / Windows 7

**Processor:** 2.4 GHz Quad Core CPU

Memory: 4 GB of RAM

Graphics: 512 MB ATI 4800 or better, 512 MB nVidia 9800 or better

Internet Connection: Broadband Internet connection recommended

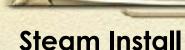
# **NSTALLATION**

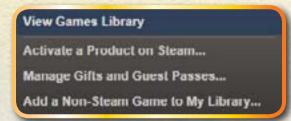
Depending on how you purchased Civilization V, you have two methods of installation available to you.

# **Box Install**

If you purchased a physical copy of Sid Meier's Civilization V, insert the DVD-ROM into your drive. You will first select your language, and will then have the option to install the game. You will be prompted during the installation to install Steam if you do not yet have it installed, and then it will ask you to login to your Steam account. Follow the onscreen instructions to finish the installation. Please note that you must be connected to the Internet during this initial installation process.

If prompted for your Product Code (for disc-based installations), please note it is located on the back of the manual cover.





If you purchased the game through Steam's online storefront, the game will automatically appear in your Games list. Click on the Civilization V title to bring up the game page.

Click on the Install button at the top of the page to begin installation.

You can also choose to add a box copy of *Civ V* purchased through a store to your Steam account. From the Games tab, click on "Activate a Product on Steam..." and agree to the Terms of Service. Enter your product key into the provided line and click on Next. You can now download and play your copy of *Civ V* as if you had purchased it directly from within Steam.



# Internet Connection

The first time you play *Civ V*, an active Internet connection will be required. Any time thereafter, you will not need to have an active connection to the Internet, unless of course you wish to play any multiplayer games.

If you purchased the game through Steam, you'll also need an Internet connection to download all the necessary game files.

While not required to play, if you wish to purchase any official DLC or browse for mods, you will also need an Internet connection.

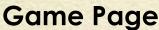
# STEAM

Civilization V is powered through Steam, an online game platform and distributor. Steam allows for automated updates, easy access to DLC, and a quick way to join up with your friends for Multiplayer games.

Steam is required to play *Civ V*, and an Internet connection will be required only when you *first* run the game. See "Installation" on page 4 for more details, or visit <a href="http://store.steampowered.com">http://store.steampowered.com</a> for more information about the service.

### Installation

See "Steam Install" above for information on installing Civilization V through Steam.



You can access information about Civ V from within Steam by navigating to the Games tab and clicking on the Civilization V entry from



within your Games list. The Civ V Game Page will list information about the game and provide links to the forums and Steam Support (in case you run into any issues). Your friends who also own the game will be displayed, and any Achievements you've unlocked will be listed. Click on the Play button at the top of the page to start up the game.

Patches, Updates, DLC

Steam will check for updates and automatically patch your game if one is found – no more hunting around on the Internet for the latest update information! You can also purchase official DLC (Downloadable Content) from within Steam. Make sure to check back often for the latest information on available maps, mods, scenarios, and new leaderhead downloads.

# Overlay

You can bring up the Steam Overlay when in-game by pressing Shift+Tab.

# **Achievements**

During the game you may unlock Achievements: unique rewards for performing a specific task. Some Achievements are easy to gain, like winning the game when playing as Washington. Other Achievements will require multiple play-throughs, planning, and effort to unlock. You can view all available Achievements in the game from Civ V's Steam Game Page. If you're playing offline when you fulfill the requirements for an Achievement, the game will

store this information and unlock the Achievement for you the next time you log into Steam. Check back often on Steam for more Achievements – new ones will become available with some DLC packs.



Tutorials are game sessions that help you learn how to play. There are two different tutorials in Civilization V. There's the "Learn as You Play" tutorial system, which is pretty much self-explanatory, and then there are the five "guided" tutorials.

# **Accessing the Tutorials**

After you've installed the software, start a game (see "Starting a Game" on page 8). On the Main Menu, click on "Single Player," then click on "Tutorial".

Click on one of the six tutorials, then on "Start Selected Tutorial."



# **Tutorial Types**

### Learn as You Play!

This tutorial starts you off in a Beginners level game, on a very small map. Your "Advisors" are set to maximum helpfulness, which means that they'll "pop-up" fairly often to give you loads of advice. This is a "real" *Civilization V* game, so you'll get a chance to experience all aspects of play — and you may even get beaten.

#### **Guided Tutorials**

These are not full games. Instead, they provide lessons on some of the most important early parts of play – movement, founding cities, combat, and so forth. Each contains a set of simple objectives, and when you complete them, the tutorial ends. Once you've mastered these, you can either try the "Learn as You Play" tutorial or you can jump into a full game. The Guided Tutorials are:

**Tutorial 1: Movement and Exploration** 

Tutorial 2: Founding Cities
Tutorial 3: Improving Cities

**Tutorial 4: Combat and Conquest** 

**Tutorial 5: Diplomacy** 

### The Advisors

Your Advisors will give you plenty of help during a game, if you want it. See "Advisors" on page 19 for more details on Advisors.



Once you've installed the game, double-click on the game shortcut, navigate to your Civilization V executable or run through Steam to start the software.

After you've enjoyed the opening animation sequence, click on the Single Player button on the Main Menu, then click on "Play Now" to begin the game with our preset default play values. The game will start immediately.

Or, instead of clicking on "Play Now," click on "Setup Game" to set the game's difficulty, map size, to pick a civilization to play, and so forth. Then click on "Start Game" to start a game.

These steps will get you playing in a hurry. If you want to know more about your game options, read on.



# The Main Menu

The Main Menu appears after the opening animation. It provides the following options:

#### SINGLE PLAYER

Click on this to set up and play a single player game. (See "The Single Player Screen" on page 9.)

#### **MULTIPLAYER**

Click on this to play a multiplayer game. See "Multiplayer Civilization V" on page 191.

### MODS

Click on this to play a "mod" – a modified *Civilization V* world created by the official *Civ V* team or by other fans (or even by yourself)! Click here if you want to explore creating your own mod.

### **OPTIONS**

Click here to go to the Game Options screen. This allows you to modify some aspects of gameplay, as well as the game's video and audio settings. See "The Options Screen" on page 15.

### **OTHER**

Click on "Other" to check out the Hall of Fame and the Game Credits.



The Single Player Screen

You access this screen from the Main Menu. This screen provides the following options:

#### **PLAY NOW**

Click on this button to play with the current "default" settings. After you've played a game, this button will start another game with whatever settings you picked in the previous one.

### SETUP GAME

This button brings you to the "Setup Game" screen, where you can choose a civilization, game difficulty, map size, etc. See "The Setup Game Screen" on page 10.

### LOAD GAME

This button brings you to the Save/Load screen, wherein you can load and continue playing a previously-saved game. See "Saving and Loading a Game" on page 13 for details.

### **TUTORIAL**

Click on this button to access the game's tutorials. See "The Tutorials" on page 7 for more info on tutorials.

### BACK

This button takes you back to the Main Menu.



# The Setup Game Screen

This screen allows you to setup your game. It has five main sections. Click on a section to alter that portion of play.

#### Leader

Click on the Leader button to choose a leader and associated civilization. The Select Civilization screen displays all of the leaders/civilizations available. It also displays the leader's "trait" (special ability) and the civilization's unique units and buildings. Scroll through the list and pick the civilization you want to build and command. At the top of the list is the "Random Leader" button. Pick this to play a random leader.

Once you've made your choice you'll return to the Set Up Game screen.

### Map Type

Click on this to choose a map type. There multiple default choices, plus a Random Map Type Button. (More will be added through downloads after publication.) The first three choices are:

#### CONTINENTS

This creates an Earth-like world with several big continents and some smaller islands.

#### PANGAEA

This creates a world with one huge continent and possibly some smaller islands.

#### ARCHIPELAGO

This creates a world with many large and small islands, but no full continents. This is a good world if you like navies!



### Map Size

This provides six map sizes plus a Random Map Size button. The size of the map you choose will also determine the number of civilizations and city-states in the game. "Duel" is the smallest size and "Huge" is the largest.

You can hover your cursor over the map sizes to see how many civilizations/city-states appear on each.

### **Difficulty Level**

This allows you to set the difficulty level of the game, from "Settler," the easiest, to "Deity," which is insanely difficult. Difficulty controls a variety of things, from the smartness of your artificial intelligence opponents to the goodies you may discover in Ancient Ruins. See "Game Difficulty" on page 14 for details.

#### Game Pace

This determines the length of time for various game tasks, like constructing buildings, researching technologies, and so forth. The "Quick" level is just that, and it makes for an extremely rapid and frenetic game. "Standard" is the default game, and we encourage it for new players. "Epic" and "Marathon" extend the times it takes to do almost anything. Check these out after you've played a few "Standard" Games.

#### Randomize Button

The "Randomize" button on the bottom edge of the Set Up Game screen will reset the leader/civilization and Map Type of the game to Random. Difficulty Level and Game Pace are never randomized.



## The Advanced Settings

The Advanced Setup Screen gives you more customization options when setting up your game. Click the "Advanced Setup" button on the Setup Game Screen to access the screen. From here you can add the exact amount of Al and City-State players you wish to play with, set the game pace, map size, and many other more minute details. Click "Start Game" when you're finished, or "Back" to return to the main Setup Game Screen.

#### Start Game

Press this button to begin a game with the settings you've chosen.

### Back

This button takes you back to the previous "Single Player" screen.

# THE CIVILIZATION V WEB SITE

The Civilization V web site is a valuable resource for game features and tips, developers' blogs, community interaction, and modding. Check the web site for the latest news, patches and information on the Civilization V universe!

www.civilization5.com



# SAVING AND LOADING A GAME

You can save or load a Civilization V game at any time.

# Saving a Game

To save a game, go to the Main Screen and get rid of any popups that might be waiting for a response. Click on the "Menu" button on the Main Screen and then on "Save Game" to create a new saved game file.



#### The Save Game Screen

Click on "Save" to save the game with the default name. Or you can give the save a new name: simply type it over the default and then click "Save." The game will be saved and you'll be returned to your game in progress.

#### Saved Game Location

The games are saved in your Window's My Documents\My Games folder. For example, if your user name on your computer were johnDoe, your saved games could be found in:

johnDoe\My Documents\My Games\Sid Meier's Civilization 5\Saves\single.

You cannot by default save your games into other directories.

# Loading a Game

#### At the Start of a Game

On the Main Menu, click on "Single Player," then on "Load Game." This will take you to the Load Game screen.

### **During Play**

Go to the Main Screen and press [CTRL-L]. Or click on the "Menu" button, then on "Load Game."

### The Load Game Screen

Once on this screen, click on the name of the game you wish to load, then click on "Load Game." The game will load and you will resume play at the point you saved it.

# **Special Saves**

#### **Auto-Save**

The program automatically saves the game every turn. (You can alter the frequency of these auto-saves in the Options screen.) To load an auto-save, bring up the Load Game screen, then click on the "Auto-Save" button, then on the auto-saved game you want to play, then on "Load Game." The auto-saved game will load and you'll resume play at the point of the auto-save.





#### Quick Save

One other save/load option is available to you: "Quick Save," which is especially useful when you're in a hurry. Press F11 to "Quick Save" your game. The game is then saved without requiring any further input from you. Only one game can be quick-saved at a time: any future quick save will overwrite the current one.

Press F12 to load the current quick-saved game.

# GAME DIFFICULTY

The game difficulty determines a number of things, including the starting power of your Al opponents, the speed at which your civilization grows, and so forth.

### **Difficulty Levels**

The Difficulty Levels are, in order from easiest to hardest:

Settler

Chieftain

Warlord

**Prince** 

King

**Emperor** 

**Immortal** 

Deity

### **Effects of Difficulty**

"Prince" is the middle level. On that level neither you nor your AI opponents get any particular bonuses. On levels below Prince you get bonuses in happiness and maintenance costs, and you get better results from Ancient Ruins. Barbarians are less aggressive and less smart on lower levels, as well.

On levels higher than Prince, the Als receive increasing bonuses in city growth, production, and technology. They may also get additional starting units and free techs to boot.



# THE OPTIONS SCREEN

The Options Screen, which allows you to change game parameters, is divided into four sections. Click on a section name at the top of the screen to modify a setting from that section.

# **Game Options**

**No Reward Popups:** Click this to disable reward popups — for technology, ancient ruins, and so forth. Experienced players involved in a hot multiplayer game often choose this option.



**No Tile Recommendations:** This disables the tile recommendations when Settlers or workers are active.

**Display Yields for Civilian Units:** This displays on-map yield information when civilian units are selected.

**No Basic Tooltip Help:** This removes the explanatory text from basic tooltips, leaving just the "raw" game data.

**Multiplayer Auto End Turn Timer:** This enables the auto-end-turn timer in multiplayer games. **Single Player Auto End Turn Timer:** This enables the auto-end-turn timer for single player games.

**Tool Tip 1 and Tool Tip 2 Delay:** This determines the amount of time delay for tool tips when hovering over various map tiles.

Adviser Level: This sets the level and amount of help you receive from your Advisers.

**Reset Adviser Messages:** Resets the Adviser system so all initial messages reappear.

# **Interface Options**

**Turns Between Autosave:** This allows you to set how often the game will autosave. See "Saving and Loading a Game" on page 13.

Max. Autosaves Kept: This determines how many autosaved games the program will keep before overwriting them.

**Automatically Size Interface:** This allows the game to choose the interface graphics that it believes best suit your computer screen's resolution.

**Use Small Scale Interface:** This forces the program to use the small-scale interface, no matter what your screen resolution.

**Alternate Cursor Zoom Mode:** When zooming out, the screen will pull straight back instead of remaining anchored to the cursor.

**Show All Policy Information:** All social policies will be displayed on the Social Policies screen at all times, regardless of the game era and what branches have been unlocked.

Spoken Language: Set the spoken language heard in the game.



# **Video Options**

**Screen Resolution:** This displays a list of the available game resolutions.

**Anti-Aliasing:** Turn on to smooth the graphical edges in the game; improves with more powerful hardware.

Full Screen: This allows you to choose whether to play in full screen mode or in a window.

**VSync:** Turning this on prevents video "tearing" by locking the frame rate. (Leave this "on" unless you're an advanced user.)

**High Detail Strategic View:** This causes the game to use higher texture resolution, allowing you to zoom in more while in the strategic view. It may affect game performance on lowerend machines.

### **Performance Options**

On startup, the game will attempt to auto-detect the following options and set them for optimum performance. (Note that not all options will be available for all Direct X versions.) If your game performance is suffering, try switching some of these from "High" to "Low."

Leader Scene Quality: Affects the quality of the image of the Leader Scenes.

Overlay Detail: Affects the quality of the overlays.

**Shadow Quality:** Affects the shadow quality of units, buildings, and other non-terrain items.

Fog of War Quality: Affects the quality of Fog of War.

**Terrain Detail Level:** Determines the level of texture detail in the terrain.

Terrain Tessellation Level: Determines the level of mesh detail in the terrain.

Terrain Shadow Quality: Determines the quality of the terrain shadows.

Water Quality: Determines the quality of the water.

**Texture Quality:** Determines the quality of the textures in the game.

## **Audio Options**

This screen lets you set the volume of various audio streams in the game.

Music Volume: How loud the background music is.

Effects Volume: Set the loudness of the effects – explosions, war cries, etc.

Ambiance Volume: Sets the loudness of the ambient noise – birds, waves, etc.

Speech Volume: Set the loudness of the speech of advisors and other leaders.

Click "Accept" to accept the changes you've made on the Options Screen.



# Introduction

This section of the manual includes an overview of Sid Meier's Civilization V, providing you with everything you need to get started. When you're ready, check out the Advanced Rules section for info on the later game and on multiplayer and modding.

Don't forget about the in-game Civilopedia, either. See "The Civilopedia" on page 3 for more details.

# CIVILIZATION V TURN STRUCTURE

# Overview

Civ V can be played in two different turn formats. The standard single-player game is "turn-based," while multiplayer games are played in "simultaneous turns."

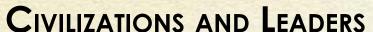
# **Turn-Based Games**

A solo game of Civ V is turn-based: you take your turn – move your units, conduct diplomacy, manage your cities, and so forth – then each of your opponents take their turns, then you take another, and so on until somebody wins.

# Simultaneous Turns Games

A multiplayer game is a "simultaneous turns game." In this style of game, you and your opponents take their turns simultaneously. Everybody moves units, conducts diplomacy, maintains their cities all at the same time. When everybody's done everything they want to do, the turn ends and another begins. You can use a Turn Timer when playing in this format as well.

Simultaneous Turns games can be a whole lot of fun, but they're not for everybody. We recommend that you get a bunch of practice in turn-based *Civ V* before you jump into a simultaneous game.



Each civilization in the game is unique. Every leader has a special "trait" which gives his or her civilization a certain advantage during the game, and each civilization also possesses unique units and/or unique buildings. Some of these appear early-on in a game, while others might show up only later. Mastering a civilization's strengths – and exploiting your enemies' weaknesses – is one of the most challenging parts of the game.



And one of the most rewarding.

All of the civilizations' traits and unique units and buildings are displayed during game setup when you choose your civilization. You can also check them out in the Civilizations section of the Civilopedia and on page 174 of this manual.

# **Leader Traits**

As described above, each leader has a unique trait, which gives it some special advantage during a game. For example, Ramesses II of Egypt has the "Monument Builders" trait, which speeds Egypt's construction of Wonders. Gandhi possesses the "Population Growth" trait, which allows India to create bigger cities with less population unhappiness. It's a good thing to keep your civilization's leader's traits in mind while playing – it can really improve your game.

# **Unique Units**

Each civilization possesses one or more "unique units," each of which is a powerful replacement for a standard unit. Greece, for example, has the Companion Cavalry unit, which it gets instead of the Horseman unit. Greece also receives the mighty "Hoplite" in place of a Spearman. Needless to say, Greece is pretty dangerous in the early part of the game. On the other hand, Germany gets a Panzer instead of the standard Tank that other civilizations will receive. So if Germany survives Greece's early advantage, it in turn will become

# **Unique Buildings**

quite dangerous during the later game.

Some civilizations also get Unique Buildings. These are like unique units in that they replace the standard buildings that other civs get. For example, Persia gets the Satrap's Court in place of a Bank, giving it a significant edge in happiness and in generating wealth. Siam gets a Wat instead of a University, which provides it with extra culture in addition to a big science boost.



As leader of a mighty civilization, you have an able coterie of Advisors who will assist you with guidance and advice. They'll point out things that they believe are important, or that you might have forgotten about. You can turn them off if you like, but you may want to try playing with them for a while first.

You have four different Advisors. Each provides advice on a specific area of expertise:



#### **Economic Advisor**

The Economic Advisor provides advice on building and improving your cities and territory.

## **Military Advisor**

The Military Advisor provides advice on combat and all things related to war.

### Foreign Advisor

The Foreign Advisor advises you on exploration and your relations with city-states, and other civilizations.

#### Science Advisor

The Science Advisor gives you advice on science and technology, as well as information on game rules.

# **Contacting An Advisor**



During play, your Advisors will appear in "popups" when they have something they think you should know. They'll often provide links to other information that relates to the current topic. You can follow these links or click "Thank You" at any time to dismiss the Advisor.

You can also press the "Advisors" button in the upper righthand corner of the screen to reach the "Advisor Counsel" screen. There you can see all four of your Advisors; if they have anything useful to say on the current situation it will appear there.

# **Turning Off the Advisors**

You can determine how much assistance you get from the Advisors on the "Options" screen. You can set the advice level to Full, Minimal, or No Advice. If turned off, they won't ever appear in popups, but you can still go to the "Advisor Counsel" screen to see what they're thinking.



The Main Screen is where you'll spend the bulk of your time. Here you move your units, engage in combat, build cities, and so forth.



# The Main Map

This is where the action takes place. The Main Map displays the "known world" – the places you've explored, your cities, the terrain, resources and improvements around them, your units, and all neutral and foreign lands that are "visible" to you.

### Navigating the Main Map

There are a number of ways that you can change your point of view on the Main Map.

#### ZOOM IN AND ZOOM OUT

Use your mouse wheel or press [PageUp] or [PageDown] to zoom in and out.

#### RE-CENTER

Click on a space on the Main Map to center your view on that space.

### **AUTO-CENTER UPON UNIT ACTIVATION**

When a unit becomes "active" during your turn the Main Map automatically centers upon that unit.

#### MANUALLY CENTER UPON ACTIVE UNIT

Click upon the active unit's icon to center upon that unit.



#### MINI MAP

Click on a space on the Mini Map to center the Main Map on that space.

#### **Click and Drag**

Click and drag anywhere on the map to manually scroll the map view around.

# The Mini Map

The Mini Map is a much smaller representation of the world. As described above, you can recenter the Main Map by clicking on a location on the Mini Map.

# The Strategic View



Click on the "Strategic View" button to enter Strategic View mode. In this mode, the map and units are represented in a more simplified and less representational manner that some players find useful (and others find baffling). Check it out and see which kind of player you are!

# The Mouse

Civilization V is best played with a combination of keyboard and mouse. The mouse is used in two ways, you left-click to open menus and accept menu choices, to "activate" units, to re-center the map, and so forth.

You right-click on a map location to order active units to move to the space you've right-clicked upon.

# The Keyboard

There are a lot of keyboard "shortcut" keys in Civilization V. See the "README.TXT" file which is installed with the game for a full list. The chart at right shows some of the most important:



# FOG OF WAR

The world is a big place, and you don't always know what's going on everywhere. Early civilizations certainly didn't have any idea what the people on the other side of the mountains looked like until they sent out explorers; unless they put out sentries, they might not know that an enemy was massing a huge army just outside of their own borders. In Civilization V, until you explore the world, it's hidden in the "fog of war."

The fog of war is represented by the white clouds that cover much of the world at the start of the game. As you move units around, the fog of war will pull back, revealing more of the world. Once you have uncovered the fog of war from a tile, it doesn't come back. However, if a unit moves and you can no longer see a tile, you won't know if anything is going on there.



# The Three States of Knowledge

### Visible

If a tile is currently visible to a unit or your territory, you can see its terrain, any improvements on it, if it's within any borders, whether it's part of a city, any unit which may occupy it, and so forth. Subject to technology limitations, you'll see the resources in the tile as well.

### Revealed

If you have uncovered the fog of war from a tile but cannot see it at the present moment (because the exploring unit has moved away, for instance), the tile is slightly darkened. You can still see the terrain in the tile, but you will not see any units in the tile. You may not see any improvements, units, and so forth. Basically, your information about that tile may be well out of date.

### Fog of War

Tiles under the clouds of the fog of war are totally unknown to you. You don't know what kind of terrain they are, who occupies them, or anything else. For all you know they may be flowing with gold or patrolled by ninja dinosaurs. You'd better get someone out to explore them as quickly as possible!

# What is Seen

You can always see everything within your borders, as well as one tile away from your borders. Most units can see everything within 2 tiles (except for tiles behind mountains and blocking tiles; see below). Units on hills can see over blocked tiles. Certain promotions will extend a unit's sight by 1 tile, and a number of mid- to late-game naval units have extended sight as well.

# **Obscuring Terrain**

Mountains and Natural Wonders are impenetrable: they totally bar visibility of what's beyond for everything (except for flying units).

Forests, mountains and hills are all "blocking" terrain. Units can see into such tiles, but they cannot see past them – unless they occupy a hill. Units on hills can see over blocking terrain into the tiles beyond.

# **Indirect Fire**

Some ranged units are capable of "indirect fire," which means that they can shoot at targets they can't see, as long as another friendly unit can see them. For example, an Artillery unit can shoot over a hill at a target it can't see if a friendly unit is atop that hill.







# GAME INFO SCREENS

Civilization V contains the following information screens. They tell you lots of useful stuff about how well you're doing. The screens are accessible from buttons on the Main Map, and via "shortcut keys."

# Research Info



This button toggles the "Research Info" screen, which displays your current research project. It shows how many turns remain for the research, and what the research "unlocks." See "Technology" on page 82 for more details.

# **Unit List Panel**



This button toggles the "Unit List" panel, which lists all of your units and their statuses. Click on a unit in the list to activate that unit and center the screen on it. See the unit section for details.

Click on the "Military Overview" button to go to that screen (see "Military Overview" on page 26).

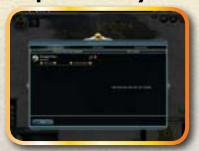
# City List Panel



This button toggles the "City List" panel. Click on a city to open that City Screen. See the city section for details.

Click on the "Economic Overview" button to go to that screen (below).

# Diplomacy Info Panel



This button toggles the "Diplomacy List" panel. Click on an entry to conduct diplomacy with a known civilization or city-state. This screen also shows the game score. See "Diplomacy" on page 111 and "Victory and Defeat" on page 115 for more details.

Click on the "Diplomacy Overview" button to go there (see below).

# **Victory Progress Screen**



This button brings up the "Victory Progress" screen. This shows your current progress on the various paths to victory available in the game. See "Victory and Defeat" on page 115 for details.

# **Demographics Screen**



This screen provides lots of info about your civilization – its size, wealth, military, output, and so forth. It allows you to compare your civ with others as well, showing your ranking, as well as the average, best and worst scores in each categories.

# **Notification History**



This screen lists all of the notifications your civilization has received over the course of the game, and the turns you received them.

Check it out periodically to ensure that you haven't missed any vital information!

# Military Overview



This screen displays all of your units, plus your supply status. It also shows your progress towards acquiring a Great General. See "Great People" on page 99 for details.

# **Economic Overview**



This screen provides a more in-depth list of your cities, showing their population, defensive strength, output of food, science, gold, culture and productivity, and what it is currently building and how long until it is complete. Click on a city to open that City Screen.

# **Diplomatic Overview**



The screen displays your current diplomatic status with all of the other civilizations and city-states.



### **Deal History Screen**

This shows you diplomatic deals in progress, plus other important data about previous diplomatic deals.





This screen provides access to all of your advisors, who will give you valuable advice on running your mighty empire. See "Advisors" on page 19 for details.

# Social Policies Screen



This screen displays all of your social policies, as well as others that you have not yet acquired. See "Social Policies" on page 93 for details.



# **TERRAIN**

In Civilization V, the world is made up of hexagonally-shaped "tiles" (also occasionally referred to as hexes and spaces). These tiles come in a variety of "terrain-types" – desert, plains, grassland, hills and so forth – and many also include "features" like forests and jungle. These elements help to determine the tile's usefulness to a nearby city as well as how easy or difficult it is to move through the tile. A tile's terrain and features may have important effects upon any combat occurring there.

#### Resources

Resources are sources of food, productivity, or culture, or they provide other special bonuses to a civilization. They appear in certain hexes. Some are visible at the start of the game; others require the acquisition of specific technologies before you can see them. See "Resources" on page 36 for more details.

**Terrain Types** 

There are nine basic terrain types in the game. (You may not see all nine in a given game, though.)

### **Explanation of Terrain Values:**

**City Yield:** This is how much food, gold or productivity a nearby city can get from an unimproved tile of that type.

Movement Cost: The cost, in movement points (MPs) to enter the tile type.

**Combat Modifier:** The change in attack or defense strength of a unit occupying that tile type.

### Coast



Coast hexes are the ocean hexes directly adjacent to land. They provide food and gold to a nearby city. Only naval units, helicopters, and "embarked" land units may enter coastal hexes.

Food: 1

Production: 0

Gold: 1

Combat Modifiers: None

Movement Cost: 1

Cannot build cities on coasts; only naval units or embarked units may enter this kind of tile.

# Desert



In general, desert hexes are remarkably unuseful. They provide no benefits to cities (unless the desert contains an oasis or resource, of course), and units occupying them receive a significant defensive penalty in combat.

Food: 0

**Production:** 0

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

#### Grassland



Generally, grassland produces the most food of any terrain type. Cities constructed near grasslands will tend to grow faster than cities built elsewhere. This tile's major drawback is the defensive penalty that an unprepared unit might get if attacked.

Food: 2

**Production:** 0

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

#### Hills



Hills are well, hilly. They're difficult to farm and hard to move through, but they provide good defensive bonuses and many different resources can be found therein. In addition, units atop hills can see over "blocking terrain." Hills provide increased productivity to a nearby city, as well as important combat bonuses.

Food: 0

Production: 2

Gold: 0

Combat Modifiers: +25%

**Movement Cost: 2** 

### Lake



A lake is any body of water ten tiles or smaller in size that is completely surrounded by land tiles. Lakes are sources of fresh water, allowing construction of farms on adjacent hills and tundra.

Food: 2

**Production:** 0

Gold: 1

Combat Modifiers: None

Movement Cost: 1

Lakes are only useful for Food and Gold once the nearby city has the proper technologies to access them.

#### Mountain



Mountains are tall upthrusts of terrain, impossible for non-flying units to move through. They're not particularly helpful to a civilization, except as barriers to invasion.

Food: 0

**Production:** 0

Gold: 0

Combat Modifiers: +25% Movement Cost: Impassable

Mountains are impassable except to air units.

#### Ocean



Ocean hexes are deep-water hexes. They provide food and gold to a city, once the city has the technology to access them.

Food: 1

**Production:** 0

Gold: 1

Combat Modifiers: None

Movement Cost: 1

Oceans are only useful for Food and Gold once the nearby city has the proper technologies to access them.





Plains provide a mix of food and production to a nearby city. A city surrounded by plains will grow more slowly than one in grassland, but it will be far more productive.

Food: 1

**Production:** 1

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

#### Snow



Snow is quite unproductive, with no food or production benefit to a nearby city. Of course a snow hex might contain a useful resource, but otherwise they're just cold and barren.

Food: 0

**Production:** 0

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

#### **Tundra**



Tundra is the semi-frozen land found in the world's colder climates. It is less useful than plains or grassland, but slightly better than desert. Nobody builds cities in the tundra unless they're desperate for resources – or they've got nowhere else to go.

Food: 1

**Production:** 0

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

# **Features**

Features are elements of terrain or vegetation that appear in a hex, atop the hex's terrain. (A grassland hex might have forest or marsh on it as well, for example.) Features modify a hex's productivity and might also alter the amount of "movement points" (MP) a unit expends when entering the hex. Features may also provide defensive combat bonuses or penalties to a unit occupying the hex.

#### **Feature Values**

Like terrain, features also have values that determine city yield, movement, and combat.

#### **Fallout**



Fallout is a special "feature" (it's more of an anti-feature, really) that appears after the nukes begin flying. Fallout badly reduces the output of a tile until it is cleaned up by a worker.

Food: -3

**Production: -3** 

Gold: -3

Combat Modifiers: -33%

**Movement Cost: 2** 

Fallout must be cleared by a Worker before any Improvements can be

built.

#### Flood Plains



Flood plains are low-lying areas adjacent to rivers. Every year the river floods, providing natural irrigation and rich nutrients to the land, making flood plains incredibly fertile and the most productive farmland in the world. Ancient Egypt owed most of its wealth and power to the annual flood of the mighty Nile River.

Food: 2

**Production:** 0

Gold: 0

Combat Modifiers: -10%

Movement Cost: 1

Flood Plains are only found in tiles bordering a river.

#### **Forest**



For early man, forests were a great source of bounty, providing wood for fire, tools and shelter, and also many animals for sustenance and clothing. As a city grows there is a great temptation to cut down the forests for farmland, but a wise leader will always leave some standing — for productivity and to lift his people's spirits. Also, military units stationed in forests receive a significant defensive bonus.

Food: 1

Production: 1

Gold: 0

Combat Modifiers: +25%

**Movement Cost: 2** 

Tiles with forests covering them always yield 1 Food and 1 Production, regardless of the underlying terrain type.

#### Ice



Ice is just that: ice. It's almost entirely useless to civilization. It is impassable (except to flying units and submarines) and provides no yields. Stay away from ice.

Food: 0

**Production:** 0

Gold: 0

Combat Modifiers: None Movement Cost: Impassable

Ice tiles are impassable except to air and submarine units.

### Jungle



Dark, forbidding, and deadly to the uninitiated, jungles are a rich source of food to those with the skill and knowledge to live within them. However, jungles do not provide much in the way of materials, and a growing civilization may be tempted to mine them or turn them into cropland. However, military units situated in jungles receive a significant defensive bonus. When chopped, Jungle tiles become Plains.

Food: 1

Production: -1

Gold: 0

Combat Modifiers: +25%

**Movement Cost: 2** 

When chopped down, Jungle tiles become Plains.



Although rich in biodiversity, marshes have little to offer a hungry growing civilization. Marshes can be drained or farmed to increase their yield. Note that military units in marshes receive a significant PENALTY when attacked.

Food: -1

**Production:** 0

Gold: 0

Combat Modifiers: -33%

Movement Cost: 3

#### Oasis



An oasis is an especially lush and verdant area within a desert, usually because it sits atop a source of clean and plentiful water. Oases are extremely valuable resources in an otherwise barren and lifeless desert, and countless battles have been fought between desperate desert tribesmen to possess them.

Food: 3

**Production:** 0

Gold: 1

Combat Modifiers: -10%

Movement Cost: 1

Oases may only be found on Desert tiles.

# Natural Wonders



Natural wonders are the great and glorious creations of nature that awe and inspire us all. These include sites like Old Faithful and the Great Barrier Reef – places that truly display the grand beauty of the natural world. In addition to providing wealth and production, Natural Wonders permanently increase happiness when first seen by a civilization.

Natural wonders are impassable (except to air units).

# **Rivers**

Traditionally, cities have been built along rivers, and for good reason. Rivers provide irrigation, improving the farmland around the city, and they also protect a city, as it is quite difficult to mount an assault against a city across a river.

#### **River Locations**

Unlike other features, rivers run along the sides of the tiles rather than through them, so rivers provide their benefits to the tiles/units adjacent to them.

### City Yield Modifier

Rivers give +1 gold to adjacent tiles.

### Offensive Penalty

When attacking across a river, the attacking unit gets a 25% penalty to its combat strength.

### **Movement Effect**

A unit uses up all of its movement points when crossing a river. There is no additional cost for crossing a river if a road passes over the river and your civ has the Engineering tech.

# RESOURCES

Resources are sources of food, productivity, or culture, or they provide other special bonuses to a civilization. To a large degree your civilization's wealth and power will be determined by the number and kinds of resources you control. To utilize a resource, it must be within your civilization's borders and you must construct the appropriate "improvement" in that hex. (For example, you must construct the "plantation" improvement to get the benefit from a "banana" resource.)

There are three different kinds of resources: bonus, strategic, and luxury. All three provide yield benefits to nearby cities, and strategic and luxury resources have additional important benefits (see below).

While you may not have access to every kind of resource within your own borders, you can trade some resources with other civilizations.

## **Bonus Resources**

Bonus resources increase the food and gold output of a hex. Bonus resources cannot be traded to other civilizations.

#### Bananas



Food: +1

**Production:** 0

Gold: 0

Can be Found on: Jungles

**Improvement Needed to Access:** Plantation

### Cattle



Food: +1

**Production:** 0

Gold: 0

Can be Found on: Grasslands

**Improvement Needed to Access:** Pasture

## Deer



Food: +1

**Production:** 0

Gold: 0

Can be Found on: Forests, Tundra or Hills Improvement Needed to Access: Camp

## Fish



Food: +1

Production: 0

Gold: 0

Can be Found on: Coast

**Improvement Needed to Access:** Fishing Boats

## Sheep



Food: +1

**Production:** 0

Gold: 0

Can be Found on: Grasslands Plains, Deserts or Hills

Improvement Needed to Access: Pasture

## Wheat



Food: +1

**Production:** 0

Gold: 0

Can be Found on: Flood Plains or Plains Improvement Needed to Access: Farm

## **Luxury Resources**

Luxury resources increase your civilization's happiness and provide a small bonus to the hex's output. Only one source of a specific luxury provides a happiness bonus. Multiple sources of the same resource do not further increase a civ's happiness (however, they're still valuable since they can be traded to other civs). You do get increased happiness bonuses for each type of luxury resource you possess, though. In other words, if your civ has 1 or 2 silk, you get the same happiness bonus, but you'd double the bonus if you traded the second silk to another civ in return for sugar.

#### Cotton



Food: 0

**Production:** 0

**Gold:** +2

Can be Found on: Grasslands,

Plains, or Desert

Improvement Needed to Access:

Plantation

# City Resource Requests and 'We Love the King Day'

Periodically a city may request that you acquire a specific luxury resource. If you do so, the city will go into "We Love the King Day" for 20 turns, during which the city's growth rate is increased by 25%. When the 20 turns are over, the city will demand another luxury resource. Filling that request will cause the city to resume WLtKD for another 20 turns.

### Dyes



Food: 0

Production: 0
Gold: +2

Can be Found on: Jungle or Forest

**Improvement Needed to Access:** Plantation

#### **Furs**



Food: 0

Production: 0 Gold: +2

Can be Found on: Forest or Tundra

Improvement Needed to Access: Camp





Food: 0

Production: 0
Gold: +3

Can be Found on: Jungle, Grasslands, Plains, Desert, Tundra, or Hills

Improvement Needed to Access: Mine

### Gold



**Food**: 0

**Production:** 0

**Gold:** +2

Can be Found on: Grasslands, Plains, Desert, or Hills

Improvement Needed to Access: Mine

#### Incense



Food: 0

Production: 0
Gold: +2

Can be Found on: Desert or Plains

**Improvement Needed to Access:** Plantation

## Ivory



Food: 0

Production: 0 Gold: +2

Can be Found on: Plains

Improvement Needed to Access: Camp

#### Marble



Food: 0

Production: 0
Gold: +2

Can be Found on: Grasslands, Plains, Desert, Tundra, or Hills

**Improvement Needed to Access: Quarry** 

#### **Pearls**



Food: 0

Production: 0 Gold: +2

Can be Found on: Coast

**Improvement Needed to Access:** Fishing Boats

## Silk



Food: 0

Production: 0
Gold: +2

Can be Found on: Forest

**Improvement Needed to Access:** Plantation

## Silver



Food: 0

Production: 0

**Gold:** +2

Can be Found on: Tundra, Desert, or Hills Improvement Needed to Access: Mine





Food: 0

Production: 0
Gold: +2

Can be Found on: Jungle

**Improvement Needed to Access:** Plantation

## Sugar



Food: 0

Production: 0 Gold: +2

Can be Found on: Flood Plains or Marsh Improvement Needed to Access: Plantation

### Whales



Food: +1

**Production:** 0

Gold: +1

Can be Found on: Coast

**Improvement Needed to Access:** Fishing Boats

## Wine



Food: 0

**Production:** 0

Gold: +2

Can be Found on: Grassland or Plains

Improvement Needed to Access: Plantation

## **Strategic Resources**

Strategic resources are not visible at the start of the game: they require knowledge of a particular technology before they appear on a map. Horses, for example, do not appear until you know Animal Husbandry, and Iron doesn't show up until you learn Iron Working.

Strategic resources allow you to build certain units and buildings. When you construct an improvement on a strategic resource hex, it provides you with a limited number of those resources, and these are consumed when you construct the associated units or buildings. For example, you use one iron resource to build each Swordsman unit. If you don't have any iron available, you can't construct the Swordsman. The resource becomes available to you once more if the unit or building is destroyed.

You can trade strategic resources with other civilizations.

You can see how many units of each strategic resource you have available on the top of the main screen.

#### **Aluminum**



Food: 0

Production: +1

Gold: 0

Can be Found on: Plains, Desert, Tundra, or Hills

Technology Revealed By: Electricity Improvement Needed to Access: Mine

**Units Requiring this Resource:** Helicopter Gunship, Jet Fighter, Missile Cruiser, Modern Armor,

Rocket Artillery, Stealth Bomber, Nuclear Submarine

Buildings Requiring this Resource: Hydro Plant, Spaceship Factory

### Coal



Food: 0

Production: +1

Gold: 0

Can be Found on: Grasslands, Plains, or Hills Technology Revealed By: Scientific Theory Improvement Needed to Access: Mine

Units Requiring this Resource: Ironclad

**Buildings Requiring this Resource: Factory** 

### Horses



Food: 0

Production: +1

Gold: 0

Can be Found on: Grassland, Plains, or Tundra Technology Revealed By: Animal Husbandry Improvement Needed to Access: Pasture

**Units Requiring this Resource:** Chariot Archer, Companion Cavalry, Horseman, Cavalry, Cossack, Lancer, Sipahi, Camel Archer, Knight, Mandekalu Cavalry

Buildings Requiring this Resource: Stable, Circus

#### Iron



Food: 0

Production: +1

Gold: 0

Can be Found on: Grassland, Plains, Desert, Tundra, Snow or Hills

Technology Revealed By: Iron Working Improvement Needed to Access: Mine

**Units Requiring this Resource:** Ballista, Catapult, Mohawk Warrior, Swordsman, Longswordsman, Samurai, Trebuchet, Frigate, Ship of the Line

**Buildings Requiring this Resource: Forge** 

#### Oil



Food: 0

Production: +1

Gold: 0

Can be Found on: Jungle, Marsh, Desert, Tundra, Snow, or Coast

Technology Revealed By: Biology

Improvement Needed to Access: Oil Well or Offshore Platform

Units Requiring this Resource: Battleship, Carrier, Fighter, Panzer, Tank, Zero, B17, Bomber

**Buildings Requiring this Resource: None** 



## **Uranium**



Food: 0

Production: +1

Gold: 0

Can be Found on: Forests, Jungle, Marsh, Grassland, Plains, Desert, Tun-

dra, Snow, or Hills

Technology Revealed By: Atomic Theory Improvement Needed to Access: Mine

Units Requiring this Resource: Giant Death Robot, Atomic Bomb, Nuclear Missile

**Buildings Requiring this Resource:** Nuclear Plant



In Civilization V, the term "unit" refers to anything that can move around the map. There are a number of different types of units in play – military units, Workers, Settlers, Great People, and the like, with military units forming the bulk of them.

## **Constructing Units**

Units are built in cities. Each unit has a certain "Production Cost" which determines how many points of Production a city must expend to produce the unit. In addition, in order to construct a unit your civilization must have knowledge of the requisite technology (you must know the "Archery" technology, for example, to construct Archer units). Some units also require that your civ have access to certain resources to construct them (Swordsmen require Iron, for instance).



## **Unit Characteristics**

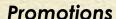
All units have three basic statistics (stats): movement speed, combat strength, and promotions.

## **Movement Speed**

A unit's Movement Points (MPs) determines how many clear tiles a unit can move through. Most early units have 2 MPs. See "Movement" on page 51 for more details.

## **Combat Strength**

A unit's Combat Strength (CS) determines how powerful it is in combat. The Warrior, the earliest combat unit available, has a CS of 6. Non-combat units like Settlers and Workers have CS's of 0 (zero). They are defeated (captured or destroyed) when attacked by any military unit.



A military unit may earn "promotions" through advanced training or from hard-won experience gained through battle. See "Unit Promotions" on page 145 for more details.

## **Unit Special Abilities**

Many units have special abilities, allowing them to do things better than other units, or to do things that other units cannot do at all. Settler units can found new cities, for example, and no other units can do so. An Archer unit can deal "ranged" damage, allowing it to attack an enemy that is not adjacent to it, while most combat units cannot. Check out a unit's Civilopedia entry to see its special abilities.

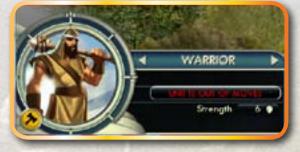
## **National Units**

Each civilization in *Civilization V* has one or more special "national units." These units are unique to that civilization, and they are in some way superior to the standard version of that unit. The American civilization, for example, has a Minuteman unit, which is superior to the standard Musketman available to other civs, and it also possesses the B17, replacing the Bomber unit. The Greek civ has the Hoplite and Companion Cavalry units, which replace the Spearman and Horseman other civs get.

See each civilization's Civilopedia entry or check the civilization list later in this manual to discover its special unit.

## **Unit Movement**

Generally, units move from hex to hex, paying the "Movement Cost" required to enter that new hex. Units are subject to "Stacking" limitations – two military units may not end their turn in the same hex, nor can two non-military units, but one military and one non-military unit may end their turn stacked in the same hex. Most units are limited in where they can move – land units cannot enter mountain hexes and



naval units cannot enter land hexes (except for port cities). Improvements like roads and railroads speed a unit's movement through land hexes.

Check out the section on Movement for details.

## **Unit Combat**

Military units can engage in combat against other units or against cities. Most military units are "melee units," meaning that they can attack only enemies in hexes directly adjacent to them. Some military units are "ranged units," meaning that they can attack enemies one or more hexes away.

See "Combat" on page 54 for details.



#### **Unit Promotions**

If a military unit survives combat, it may gain "Experience Points" (XPs), which can be used to purchase "promotions" for the unit. Promotions may improve a unit's combat ability in certain circumstances – say, when defending in forests – or give it some other advantage in battle.

See "Unit Promotions" on page 145 for more information.

## **Non-Combat Units**

There are four types of non-combat units: Settlers, Workers, Work Boats, and Great People. Each is critically important to a civilization's success. As the name "non-combat" would suggest, these units cannot fight. If attacked by an enemy unit while alone in a hex, they are automatically captured or destroyed. Therefore it usually makes sense to escort them with a military unit when sending them out into the wilderness.

## **Combat Units**

Combat units are divided into several categories. These include "Melee Units," "Ranged Units," "Naval Units," "Air Units," and "Missile Units."

#### **Melee Units**

Melee units are land units which can attack enemies in adjacent land hexes. They cannot attack enemies at sea, nor can they attack enemies more than one hex away. Melee units include Warriors, Spearmen, Musketmen, Infantry, and more. Most of your military units are melee units.

## Ranged Units

Ranged units are units that can attack enemies in adjacent hexes and in hexes one or more spaces away. The distance a unit can attack is determined by its "Range" statistic. The strength of its ranged attack is determined by its "Ranged Combat" statistic. An Archer unit, for example, has a Combat Strength of 6, a Ranged Combat Strength of 8, and a Range of 2. It can attack enemy units one or two hexes away with a Strength of 8. However, if an enemy unit attacks it, it defends with its Combat Strength of 4.

Note that Ranged units always employ Ranged combat when attacking another unit, even if that unit is adjacent. The Ranged unit uses its Combat Strength only when it is defending against an attack by another unit.

## **Naval Units**

Naval units are units that can move in water hexes. They cannot enter land hexes, except for coastal cities. Depending upon its type, a naval unit may be limited to travel in coastal waters, or it may be able to enter deep water Ocean hexes. Naval units are Ranged Combat Units (see above).



### Air Units

Air units are units which, not surprisingly, travel through the air. They are critically important during the late game, as control of the skies often determines victory or defeat in modern warfare.

#### **Nuclear Units**

Nuclear units are the most powerful units in the game. They blow a lot of stuff up, destroying units, cities, improvements and pretty much everything else. Land that has been subject to nuclear attack is badly polluted, requiring major reclamation efforts before it can be made safe and useful once again.

## **Unit Action List**

When a unit is active, it may have one or more "actions" available to it. Click on the unit's action icon to order it to perform that action.



**Move to:** Order the current unit to move to the selected tile.



**Sleep:** Order the unit to remain inactive until the player provides it new orders. It will not become active again the next turn and must be manually selected.



**Alert:** Order the unit to remain in the current tile and sleep until it sees an enemy. The unit receives a defensive bonus.



**Fortify:** The Unit remains inactive until the player provides it new orders. The unit receives a defensive bonus.



**Garrison:** Garrison a unit in this city, improving its Combat Strength. This option will only appear if a unit is occupying the same tile as a city.



**Set Up for Ranged Attack:** Required for Ranged Siege Units before they can attack.



**Embark:** Loads this unit onto a boat, allowing it to cross over water tiles. Embarking is only possible once specific technologies are known.





**Disembark:** Unload the unit from the boat back onto a land tile.



**Intercept**: This order will instruct the unit to attempt an interception with any incoming air attacks and neutralize them.



**Fortify Until Healed:** The unit remains inactive until it heals back to full strength. The unit receives a defensive bonus and heals 1HP per turn.



**Nuke:** Launches a nuclear weapon at the chosen tile. The target and all surrounding ones in the radius of the weapon will receive massive damage.



**Paradrop:** Order the unit to paradrop to the specified location. This mission is subject to interception.



Air Sweep: Order the air unit to attack enemy units in the selected tile.



**Rebase:** Order the air unit to rebase to a different city.



Range Attack: Perform a ranged attack on the selected tile.



**Pillage:** Order the unit to destroy the improvement on the current tile. The improvement must be repaired before it can be used again.



**Found City:** Order a Settler unit to found a new city in the current tile. The Settler is consumed in the process.



**Discover Tech:** This will have the Great Scientist help research a new technology. It consumes the Great Scientist.



**Hurry Production:** This order will hurry production on the city's current Wonderbuilding effort. It consumes the Great Engineer.



**Conduct Trade Mission:** If the unit is inside a City-State's territory, this order will have a Great Merchant conduct a trade mission, giving you a large amount of Gold and improving relations with the City-State. It consumes the Great Merchant.





**Build Spaceship:** Contribute a part to the Alpha Centauri Spaceship. The unit will be consumed and must be in your Capital City to use this.



**Culture Bomb:** This order will consume the Great Artist and make the tile this unit is on, as well as all adjacent tiles, become part of your borders, even if they belong to another player.



**Start Golden Age:** This order will consume the Great Person and initiate a Golden Age for 8 turns. Golden Ages give you extra Production and Gold for the period they are active.



**Build Citadel:** This order will consume the Great General and construct a citadel improvement on the current tile.



**Construct Landmark:** This order will consume the Great Artist and build a landmark improvement on the current tile.



**Build Custom House:** This order will consume the Great Merchant and construct a custom house improvement on the current tile.



**Construct Manufactory:** This order will consume the Great Engineer and construct a manufactory on the current tile.



**Cancel:** Cancel the last order given to the unit. You may find this to be very useful if you accidentally queue up the wrong order or actions.



**Automate Explore:** Order the unit to explore uncharted regions of the map. This unit will continue to move every turn until you cancel its automation.



Wake: Wake up the sleeping unit.



**Delete:** Permanently delete the active unit and receive a small amount of gold in return.



During a game of Civilization V, much of your time will be spent moving units around the world. You'll be marching your military units off to discover stuff or to fight with your neighbors. Your workers will be moving to new tiles to improve terrain and to construct roads. Your Settlers will be moving to good locations on which to build new cities.

Following are rules for moving land units and naval units. Air units have their own special rules; since they don't occur until late in the game, they're covered elsewhere.

## How to Order a Unit to Move

## Right-Click

When a unit is active, you can right-click anywhere on the map to order the unit to move there.

#### Move Mode

You can also click on the "Move Mode" Action button, then left-click on a target space.

## Legal and Illegal Moves

If the target location is illegal for the unit, it will decline the order and wait for new instructions. The movement cursor will turn red on attempted illegal moves. If the location is legal and the unit can reach that location in one turn, it will do so.

## **Multiple-Turn Move Orders**



If the unit requires multiple turns to reach the location, it will pick the shortest route and proceed on its way. It will continue to move each turn until it gets to the assigned spot.

If it becomes impossible for the unit to reach its target location — say, because exploration reveals that the tile is across the ocean and the moving unit can't embark (see "Illegal Moves" on page 52), or perhaps because another unit has sat down in the target location – the unit will stop and request new orders.

You can change a unit's orders at any time by clicking on the unit and then either giving it new orders or clicking on the "Cancel Orders" action.

## **Movement Points**

All mobile units have a certain number of "Movement Points" (MPs) that they can expend on movement in every turn. Once they've expended those MPs, they can't move any more until the next turn (except for a few very special units; see "Air Bases" on page 120).

Most early units land units have 2 MPs; horse and naval units have more.



Units expend MPs to enter tiles. The terrain of the tile a unit is entering determines the MP cost of the move. It doesn't cost anything to leave your current tile; the MP cost is only calculated by the tile you're entering.

See "Terrain Types" on page 28 for details on MP costs, but generally, open terrain like Grassland and Plains costs 1 MP to enter, while Forest and Jungle costs 2. It also expends all of a unit's MPs to cross a river (unless a road is there; see below).

A unit can always move one tile if it has any MPs left. It doesn't matter how expensive the tile is; as long as the unit has something left, it can enter. Once the unit has expended all of its MPs, it must stop moving.

## Road and Railroads



Roads and railroads cut a unit's movement cost in friendly or neutral territory. As long as the unit moves from one tile containing a road/railroad into another tile containing a road/railroad, the unit will expend just a fraction of the normal cost to move. As long as the unit has any MPs left, it can continue to move along the road/railroad.

## Rivers and Roads/Railroads

Once you've learned the "Engineering" tech, you can move across rivers on roads/railroads without paying the standard penalty. If you don't have Engineering yet, you must pay the penalty even if crossing over on a road.

## **Illegal Moves**

Certain tiles cannot be entered by certain units. A naval unit can't enter a non-city land tile, for example, and a land unit cannot enter a mountain tile or an ocean tile. If a unit can't enter a tile, you won't be able to order it to move there. Sometimes a move is revealed as illegal during a unit's move. If that is the case, the unit will stop when it discovers the illegality and wait for new orders.

## **Stacking Limitations**



Remember that only one combat unit can end its turn in a tile, and only one non-combat unit can end its move in a tile – though a single combat unit and a single non-combat unit can end their turn "stacked" in the same tile.

A unit may pass through another unit as long as it has enough movement to complete the full move, and does not end up on top of another unit of the same type.



## **Movement During Combat**

#### **Attack Orders**

Generally, if you order a unit to move into a space occupied by an enemy unit, the unit will interpret that order as instructions to attack the enemy unit. If the moving unit is a non-combat one, the unit will stop and ask for new orders.

#### **Zones of Control**

Combat units exert a "Zone of Control" (ZOC) over the tiles around them. When a unit moves between two tiles within an enemy's ZOC it expends all of its MPs.

## **Naval Movement**

Generally, naval units follow the same rules as land units, except that they move in the water rather than on land. Early naval units are often limited to coastal waters (those adjacent to land tiles) and coastal cities. Eventually, you'll produce naval units that can enter deep ocean tiles, and thus explore the world. Naval units cannot enter ice tiles (except for submarines, which can go under 'em).

## **Embarking Land Units**



At the start of the game, your land units cannot enter any water tiles. However, once you've learned the Optics technology, a unit can earn the promotion that allows it to "embark" and move into coastal water tiles. To embark a unit, move the unit to a coastal tile and then click on the "Embark" Action. Once embarked, the unit must move into water. (Optics allows movement into coastal water only. The later Astronomy tech allows embarked units to enter ocean tiles.)

In the water the embarked unit is very slow and helpless. It is totally unable to fight, and any enemy naval vessel can easily

destroy it. It's critical to accompany embarked land units with a strong naval defense.

When the unit is adjacent to a land tile, you can click on the "Disembark" action. The unit will then be able to return to dry land. Alternatively you can right-click on a land tile and the unit will disembark automatically.



Combat occurs between two political entities that are at war with each other. A civilization may be at war with another civ or with a city-state. Barbarians are always at war with all civilizations and city-states.

There are three major forms of combat: melee, ranged, and air combat. The first two occur throughout most of the game, while air combat doesn't happen (naturally) until somebody discovers flight.

Since it occurs so late in the game you needn't be concerned with how to conduct air combat when you begin play. Air combat is discussed later, in its own section (see "Air Combat" on page 119).

## **Declaring War**

War against another civ may be declared in a couple of different ways, or you may find yourself on the receiving end of an enemy's declaration.

## **Diplomatically Declaring War**

You may declare war on a civilization through the Diplomacy panel (see "Diplomacy" on page 111). You may declare war on a city-state by clicking on the city-state's city and picking "Declare War" from the pop-up.

## **Attacking Another Unit**

You can simply order one of your units to attack another civ's units. If you're not currently at war with the civ you're attacking, a pop-up will appear asking if you want to declare war on that civ (or city-state); if you choose to do so, the attack occurs. If you decline, the attack is aborted.

## **Entering a Civilization's Territory**

It is also an act of war to enter a civ's territory if you don't have an "open borders" agreement with that civ. A pop-up will appear and ask you to confirm your move. Note that it isn't an act of war to cross a city-state's borders, so no pop-up will appear in that case.

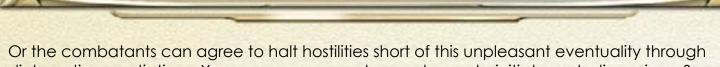
## Receiving an Enemy Declaration of War

At any time another civilization or city-state may declare war on you. If so, you'll be informed by an unpleasant popup (or notification). You may have an opportunity to try to negotiate your way out of the conflict, or you may have no choice but to fight. See "Diplomacy" on page 111 for details.

Barbarians are always at war with you, so you'll never get a declaration of war from them.

## **Ending a War**

Wars end automatically when one side has been destroyed because it has lost its last city.



diplomatic negotiations. You or your opponent may choose to initiate such discussions. See "Diplomacy" on page 111 for details.

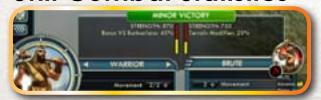
Barbarians cannot be negotiated with. You'll remain at war with them as long as they're around.

## Which Units Can Fight

Any military unit may attack an enemy unit. Non-military units such as Workers, Settlers, and Great People may not initiate attacks. If attacked while on their own, Workers and Settlers are captured (captured Settlers turn into Workers) and Great People and Work Boats are destroyed.

A city may attack an enemy military unit that is within the city's Ranged Combat Range (see "Ranged Combat" on page 57), and a unit may in turn attack an enemy city.

## **Unit Combat Statistics**



A military unit's combat abilities are determined by its combat statistics. There are four basic combat stats:

## Ranged Combat Strength

Only units able to engage in "Ranged Combat" have this stat. It is the ranged unit's combat strength when it is attacking.

## Range

Only ranged combat units have this stat. It is the distance, in tiles, within which the ranged combat unit can attack the enemy.

## **Combat Strength**

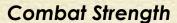
All military units have this stat. Melee units use their Combat strength when attacking or defending. Ranged units use their Combat strength when defending.

## **Hit Points**

A unit's health is measured in "Hit Points". When fully healthy, all combat units have 10 hit points. As it takes damage, it loses hit points. If a unit's hit points reach 0, it is destroyed.

## **Melee Combat**

Melee combat occurs when a melee unit (any military unit which doesn't have the Ranged Combat ability) attacks an enemy unit or city. It doesn't matter if the defender has Ranged Combat; as long as the attacker doesn't have Ranged Combat the resulting battle will be melee.



When two units engage in melee combat, the result is determined by the relative strengths of the two units – e.g., if a powerful unit fights a weak one, the powerful unit is likely to do a lot more damage to its enemy, possibly destroying it altogether.

However many different factors may affect a unit's strength in battle. Many units receive "defensive bonuses" that will increase their melee strength when they are attacked while occupying forests or hills, or are fortified. Some units get bonuses when fighting other specific unit types (spearmen get bonuses when fighting mounted units, for example). Also, a unit's injuries may reduce its current combat strength. (See "Combat Bonuses" on page 58 for details.)

The Combat Information Table (see below) will help you determine the relative strengths of two melee units during your turn.

## **Multiple Units in Combat**

Units receive a "flanking" attack bonus of 15% for each unit adjacent to the target unit. Some promotions and social policies give an attacking unit additional bonuses beyond the basic flanking bonus. These bonuses can be incredibly powerful when enough units are involved. In general, the more units "ganged up" on the target unit, the better!

#### **Combat Information Table**



When one of your units is active, hover the cursor over an enemy unit to bring up the "Combat Information Table" and learn the probable outcome of any battle between the two units. This table shows your unit's modified combat strength on the left and

your enemy's on the right. The box at the center top of the screen tells you the likely outcome of the battle, and the bars in the center of the box tell you how much damage each side will take if combat occurs.

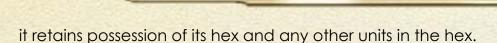
## **Initiating Melee Combat**

The attacking unit initiates the melee by attempting to move into the enemy's hex. The attacker cannot engage in melee unless it can enter the defender's hex. (In other words, a Spearman cannot engage in melee combat against a Trireme since it can't enter that space except when embarked.)

To order an active unit to attack, right-click on the target. The active unit will initiate the combat.

### **Melee Combat Results**

At the end of melee combat, one or both units may have sustained damage and lost "hit points." If a unit's hit points are reduced to 0, that unit is destroyed. If after melee combat the defending unit has been destroyed and the attacker survives, the attacking unit moves into the defender's hex, capturing any non-military units in that hex. If the defending unit survives,



Most units use up all of their movement when attacking. Some however have the ability to move after combat – if they survive the battle and have movement points left to expend.

Any surviving units involved in the combat will receive "experience points" (XPs), which may be expended to give the unit promotions (see "Unit Promotions" on page 145).

## **Ranged Combat**



Some units like Archers and Catapults and Triremes engage in Ranged Combat (that is, they shoot missiles at enemy units) when attacking rather than engaging in melee combat. Such units have two distinct advantages over melee units: first, they can attack enemy units that are not adjacent to them, and second, they do not take damage when they attack.

## Ranged Combat Strength

Any unit that can engage in ranged combat has a Ranged Combat Strength statistic. This number is compared with the target's Combat Strength to determine the results of the attack.

To see the potential effects of a ranged attack, with the attacking unit active hover the cursor over the potential target. The "Combat Information Table" will appear, showing you the losses (if any) the target will take from a ranged attack by the active unit.

## Range

The unit's "Range" stat determines the distance at which a unit can launch a ranged attack. A range of "2" means that the target can be in an adjacent tile or one tile distant. A range of "1" would mean that the target had to be adjacent to the attacker. (There are no units with a range of 1, by the way, so don't scour the Civilopedia for 'em.)

## Line of Sight

Generally, a ranged unit must be able to "see" its target in order to be able to fire at it (although see the "Indirect Fire" promotion). A unit cannot see a target if a blocking object is between the two – a mountain or hill, for example, or a forest tile. A unit can always see into a tile, even if it contains blocking terrain, but it cannot see objects in tiles past the blocking terrain.

Note that units on hills and flying units can often see over blocking terrain.

## **Initiating Ranged Combat**

With the ranged unit active, right-click on the target, and the attack will commence.



## Ranged Combat Results

At the end of ranged combat, the target unit may have sustained no damage, some damage, or it may have been destroyed. Remember that the attacking unit will never suffer any damage during ranged combat (except possibly for air units). If the target is destroyed, the attacking unit does not automatically enter the now-vacant tile (which is what usually happens during melee combat), but you may of course send another unit into the empty space if you've got one with the movement points available.

The attacking and defending units may receive "experience points" (XPs) as a result of the combat. See "Unit Promotions" on page 145 for details.

## **Combat Bonuses**

Units receive a variety of benefits during combat, some from the unit's location, others from its defensive posture, and others from a variety of special circumstances. Some bonuses apply only to an attacking unit, some only to a defending unit, and some might apply to both. The most common bonuses come from the terrain the unit occupies, and whether the defending unit is "fortified."

#### **Terrain Bonuses**

Defending units get important bonuses for occupying forest, jungle, or hill tiles. Attacking melee units are penalized if they attack an enemy across a river. Attacking units get bonuses when attacking from a hill.

See "Terrain" on page 28 for more details.

### **Forts**

Once a civ has acquired the Engineering technology, workers can construct "forts" in friendly or neutral territory. Forts provide a hefty defensive bonus to units occupying them. Forts cannot be constructed in enemy territory. If a unit enters a fort in enemy territory, the fort is destroyed. Forts can be constructed atop resources.

## **Fortification**

Many units have the ability to "fortify." This means that the unit "digs in" and creates defensive works in its current location. This gives the unit certain defensive bonuses, making it much tougher to kill. However, fortifications are strictly defensive: if the unit moves or attacks, the fortifications are destroyed.

While fortified, a unit will not activate. It will remain inactive until you manually activate it by clicking on the unit.

### WHICH UNITS CAN FORTIFY

Most melee and ranged units can fortify. Non-military, mounted, naval, armored, and air units cannot fortify. These latter units can "Sleep," which means that they will remain inactive until attacked or you manually activate them, but they do not receive the defensive bonus.

#### FORTIFICATION BONUSES

The amount of the bonus depends upon the length of time the unit has been fortified. The unit receives a 25% defensive bonus on the first turn it is fortified and a 50% bonus during all subsequent turns.

#### THE "ALERT" ORDER

The "alert" order is similar to "fortify," except that the unit will "wake up" when it sees a nearby enemy unit. The wakened unit retains the fortification bonus as long as it doesn't move or attack (so if you order it to go into alert mode again or to pass its turn it keeps the bonus).

## **Naval Combat**



Like land units, there are military and non-military naval units. Work Boats and any "Embarked" Land Units are non-military units, and they are automatically captured when attacked by barbarians and destroyed when attacked by other civs or city-states.

All military naval units are ranged combat units. They may attack other naval units and any land units within range that they can see.

Naval combat is resolved like normal ranged combat. There are however certain late-era naval units that merit special attention:

the Carrier, Missile Cruiser and the Submarines. They are discussed later, in the Air Combat section.

## **City Combat**

Cities are big, important targets, and if fortified and defended by other units, can be quite difficult to capture. However, doing so can reap rich rewards – in fact, the only way to knock another civilization out of the game is to capture or destroy all of its cities. Do this to enough opponents and you can win a mighty domination victory (see ""Keyboard Shortcuts" on page 207).



## City Combat Stats

#### CITY COMBAT STRENGTH

Cities have Combat Strength, just like units. The city's Combat Strength is based upon the city's size, its location (cities on hills are tougher), and whether its owner has constructed walls or other defensive works in the city.

The city's Strength represents its Combat Strength and Ranged Combat Strength. During the combat the city's hit points may decline due to enemy attacks, but its Combat and Ranged Combat strengths remain equal to its initial Strength — no matter how much damage the city has taken.



#### CITY HIT POINTS

A fully-healthy city has 20 hit points. As it takes damage, the city's hit points are reduced. If a city's hit points reach 0, an enemy unit can capture the city by entering its tile.

## **Attacking Cities with Ranged Units**

To target a city with a ranged unit, move the unit so that the city falls within the unit's range and then right-click on the city. Depending upon the power behind the attack, the city's hit points may be reduced by the attack. (The attacking unit is not damaged, of course.) Note that a ranged attack cannot drop a city below 1 HP: the city must be captured by a melee unit.

## **Attacking Cities with Melee Combat**

When a unit engages in melee combat with a city, the city may take damage to its hit points, and the melee unit may suffer damage as well. No matter how few hit points the city has remaining, it always defends itself at its full combat strength.

#### Garrison Units in Cities



A city's owner may "garrison" a military unit inside the city to bolster its defenses. A portion of the garrisoned unit's combat strength is added to the city's strength. The garrisoned unit will take no damage when the city is attacked; however, if the city is captured the garrisoned unit is destroyed.

A unit stationed in the city may attack surrounding enemy units, but if it does so the city loses its garrison bonus, and, if it's a melee attack, the unit may take damage during the combat as normal.

## Cities Firing at Attackers

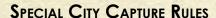
A city has a Ranged Combat Strength equal to its full Strength at the start of combat, and it has a range of 2. It may attack any one enemy unit within that range. Note that the city's Ranged Combat Strength doesn't decline as the city takes damage; it remains equal to the city's initial Strength until the city is captured.

## **Healing Damage to Cities**

A city heals at least one point of damage every turn, even during combat. Therefore to capture a city the attacker must do more than one point of damage per turn (and usually a lot more than that).

## **Capturing Cities**

When a city's hit points reach "0", an enemy unit may enter the city, regardless of any units already inside. When this occurs, the city is captured. The attacker usually has the option of destroying the city, making it a "puppet," or adding the city to his empire. Whichever he chooses to do, the civilization which loses the city has taken a huge blow. See "Cities" on page 67 for more details.



Naval units, missiles and helicopters cannot capture a city – although they certainly can soften one up a good deal before the ground unit strolls right in. (And remember that ranged units cannot capture cities either.)

## Siege Weapons



Certain ranged weapons are classified as "siege weapons" – Catapults, Ballista, Trebuchet, and so forth. These units get combat bonuses when attacking enemy cities. They are extremely vulnerable to melee combat, and should be accompanied by melee units to fend off enemy assault.

Most siege weapons have to be disassembled to move around the map. When they have reached their destination, they must expend a movement point to "set up." They cannot attack until they have done so.

Siege weapons are *important*. It's really difficult to capture a well-defended city without them!

## **Great Generals**

Great Generals are "Great People" skilled in the art of warfare. They provide combat bonuses – offensive and defensive bonuses both — to any friendly units within one tile of their location. A Great General itself is a non-combat unit, so it may be stacked with a combat unit for protection. If an enemy unit ever enters the tile containing a Great General, the General is destroyed.

A Great General gives a combat bonus of 25% to units in the General's tile and all friendly units within 2 tiles of the General.

Great Generals are created when your units have been in battle and can also be acquired when you unlock the "Warrior Code" social policy or when building certain wonders. See "Great People" on page 99 for more details.

## **Combat Damage**

A fully healthy unit has 10 "hit points" (HPs). When a unit takes damage during combat it loses HPs, and if it reaches 0 HPs, it is destroyed.

A unit that has taken damage is weaker than a healthy unit, and it is closer to destruction. Wherever possible, it's a good idea to "rotate out" damaged units from battle to allow them to heal up before reentering the fray. This, of course, is not always possible.

## **Effects of Damage**

A damaged unit is less effective when attacking than a fully-healed unit. The more damaged the unit, the less its attack – melee or ranged – will damage an opponent. The actual formula is more complex than this, but as a general rule a unit's damage output is reduced by half the percentage of HPs that it has lost. In other words, a unit that has lost 5 HPs (50%) has the amount of damage it does reduced by 25%, and the damage a unit that has lost 9 HPs (90%) inflicts, is reduced by 45%.



## **Healing Damage**

To heal damage, a unit must remain inactive for a turn. The amount of damage that a unit heals depends upon the unit's location.

In a City: A unit heals 3 HPs per turn. In Friendly Territory: 2 HPs per turn.

**In Neutral or Enemy Territory:** 1 HP per turn.

Note that certain promotions will accelerate a unit's healing rate.

## **Naval Units Healing Damage**

Naval units cannot heal unless in Friendly territory, where they heal 2 HPs per turn.

## The "Fortify Until Healed" Button

If a unit is damaged, the "Fortify Until Healed" button appears in its Action buttons. If you click on this button, the unit will fortify and remain in its present location until it is fully healed. See "Fortification" on page 58 for details of the defensive benefits of fortification.



A unit that survives combat will gain "experience points" (XPs). Once the unit has acquired enough XPs, you may expend them to acquire "Promotions" for that unit. There are a large variety of promotions in Civ V. Each gives a unit special advantages in battle.

## **Acquiring XPs Through Combat**

A unit gains XPs for surviving a round of combat. The unit doesn't have to win the combat or destroy the enemy to get the experience; it accrues each round that the unit lives through. The amount of XPs the unit gets depends upon the circumstances of the combat. Generally, units get more XPs for attacking than defending, and more for engaging in melee combat than for other types. Here are some numbers:

An Attacking Melee Unit: 5 XPs

**Defending Against a Melee Attack: 4 XPs** 

An Attacking Ranged Unit: 2 XPs

Being Attacked by a Ranged Unit: 2 XPs

Barbarian Limitations: Once a unit has gotten 30 XPs, it no longer gets any

additional XPs for fighting Barbarians.

## Other Methods of Getting XPs

A unit constructed in a city containing a Barracks or other military building will begin its life with XPs, the number depending upon the specific building. (Barracks and Armories each provide 15 XPs.) Also, certain social policies and other special effects may also provide XPs to units.

## **Expending XPs**

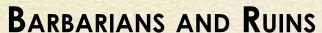
When a unit has acquired enough XPs to purchase a promotion, the "Promote Unit" button will flash every time the unit is active. If you click on that button, a list of the promotions available to the unit is displayed. Click on a promotion to choose it. The XPs are expended and the unit acquires the promotion immediately. Any available promotions must be spent prior to ending the turn.

## **Promotions List**

There are dozens of promotions available in *Civilization V*. Some are available to all units, while others can be acquired only by certain unit types. Some promotions require that a unit have acquired other promotions before they become available.

If a promotion is available to a unit, it will be listed when you click on the "Promote Unit" button.

See the Civilopedia Section on Promotions, or "Unit Promotions" on page 145 for more details and for a full list of all promotions.



During the early portion of the game – say, the first 25 – 50 turns – much of your energy should be involved in exploring the world. During your exploration you will be encountering ancient ruins and barbarians. Ancient ruins are good, barbarians are not.

## **Ancient Ruins**

Ancient Ruins are the remnants of even earlier civilizations which rose and fell long before you came on the scene. Ruins provide a random benefit to the civilization of the unit that first enters their tile. The ruin is destroyed when it is entered.

Ruins are cool. Find as many as you can before other civs get to them!



#### **Ruin Benefits**

#### FREE TECHNOLOGY

The ruin provides your civilization with a free technology.

#### Map

The ruin provides a map of the surrounding area (lifting the fog of war from a number of tiles).

#### WEAPONS UPGRADE

The unit which enters the tile is upgraded to a more advanced unit (a warrior might become a spearman, for example).

#### SURVIVORS

The ruin contains survivors from the earlier civilization. They move to one of your cities, increasing its population by one.

#### **TREASURE**

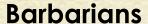
The ruin provides gold to your civilization.

#### CULTURE

The ruin provides culture to your civilization.

#### SETTLERS AND WORKERS

On easier difficulty levels, you can also receive free Settlers and Workers from ruins.



Barbarians are roving bands of villains who hate civilization and everything that goes with it. They attack your units and cities and pillage your improvements. They're just not very nice at all.

As your civilization grows the barbarians become much less menacing, but early in the game they can be a huge problem.

## **Barbarian Encampments**



Barbarians come from "encampments", which may appear randomly in any tile that cannot be seen by a unit. Every few turns the encampment will create another barbarian unit which will make a beeline for the nearest civilization and start causing trouble. The only way to stop this is to find the encampment and destroy it. Encampments are usually guarded by at least one unit, so they're not pushovers.

#### REWARD FOR DESTROYING AN ENCAMPMENT

A civilization will earn a gold reward for dispersing a barbarian encampment — in addition to the benefit of stopping it from spawning

more barbarian units, which of course is the primary reward.

#### **NEW ENCAMPMENTS**

Barbarian encampments may spring up in any neutral space which cannot be seen by a civilization's city or unit. If you want to keep barbarian encampments from popping up around your civilization, expand your borders and place units on hills to keep as much terrain in sight as possible.

## **Barbarian Units**

Barbarian encampments can create almost any kind of unit in the game – from Warriors and Spearmen to Cannon and Tanks. (They can build units equal to those that the most advanced civilization can create.)

Once created the barbarian units will either hang around their encampment or head off toward the nearest civilization or city-state and try to cause trouble. They'll attack units, destroy improvements and menace cities. If enough are involved, they can take down a poorly-defended city, which is then thoroughly pillaged. A pillaged city may lose gold, buildings and population.

This is why it's important to periodically sweep the countryside around your civilization, destroying encampments before they become a threat.

## **Barbarian Naval Units**

Barbarian encampments on the coastline can create naval units (again, equal to those that can be created by the civilization with the most advanced tech). These units will menace your coastline, destroy naval improvements and attack hapless land units which stray too near the coastline. It's important to maintain a navy to keep them off your back, but the



best way to stop these attacks is to destroy the coastal encampments nearby.

Warning: If a barbarian ship comes across an embarked unit, it will destroy it!

## **Captured Civilians**

If a barbarian unit comes upon a non-combat unit – Settler or Worker – the barbarians capture that unit. They will take it off to their nearest encampment, and the unit may be recovered by any player in the game. Should one of your civilians be captured in this manner, be sure to pursue and retrieve them before somebody else does!

## **Experience Points Limitations**

When they fight barbarian units, your less well-trained units will gain experience points. However, any unit that has already acquired 30 XPs (or has exchanged that many for promotions) no longer gains XPs from fighting barbarians.

## The End of Barbarians

Barbarians can remain in the game right up until the end. However, as more land is acquired there will be less available for the barbarian encampments to spawn in. If the entire world is civilized, the barbarians will be gone.



Cities are vital to your civilization's success. They build units, buildings and wonders. They allow you to research new technologies and gather wealth. You cannot win without powerful, well-situated cities.

## **How to Build Cities**

Cities are constructed by Settler units. If the Settler is in a location where a city can be constructed, the "Found City" action button will appear. Click on the button and the Settler will disappear, to be replaced by the new city.

## Where to Construct Cities

Cities should be constructed in locations with plenty of food and production and with access to resources. It's often a good idea to build a city on a river or coastal hex. Cities constructed on hills gain a defensive bonus, making it harder for enemies to capture them.

## The City Banner

The city banner appears on the Main Map. It provides a useful snapshot of the goings-on in the city.

The City Screen
Click on a city's banner to reach the city screen.



The city-screen allows you to "fine tune" your control over each city. It contains the following elements:

## Your Citizens at Work

The center of the City Screen displays the map around your city. Your city's borders are displayed, and you can see which tiles your citizens are "working" (the tiles with the green citizen "coins" in them). Tiles that they could work are shown as black "coins".

#### "LOCKING" A CITIZEN TO A TILE

You can order a citizen to work a specific (unworked) tile by clicking on that tile. If an unemployed citizen is available, that citizen will go to work that tile. If not, the city will choose a



citizen from another tile to work the tile. The coin will turn green and have a lock symbol on it. This notes that the city will always work that tile, until you order it to cease by clicking on it again.

#### REMOVING A CITIZEN FROM WORK

If you click on a tile that is being worked (it has a green coin, either displaying a person or a lock), the citizen will cease to work that tile and become "Unemployed", appearing in the Unemployed Citizen List (see next page). You can then order that citizen to become a specialist in a building. You can click on an unemployed citizen in the list and he will return to work a tile on the map (if one is available to be worked).

## City Output

This panel shows how much food, production, gold, science and culture the city is producing. It also shows how many turns until the city's border increases and how many until the city's population grows. Hover your cursor over an entry to get more details about it.

## **Civilization Output Summary**

This line of data also appears on the Main Map. It shows:

- How much science your civilization is earning each turn from this city
- How much gold your civ possesses and how much it is earning
- Your civilization's happiness and your progress toward the next Golden Age
- Your civ's culture, and how much is needed to acquire another social policy
- Your civ's strategic resources

## City Banner

The city banner displays the city's name; the city's Combat Strength is displayed under the name.

Note the arrows on the left and right edges of the banner. Click on these to close this city's City Screen and move to another. You can rotate through all of your cities in the game using these arrows.

Beneath the city banner is displayed any resources the city demands to go into We Love the King Day (see "We Love the King Day" on page 78).

## **City Allocation Focus**

Click on the "+" next to "City Allocation Focus" to open this panel; click on the "-" to close it. This panel allows you to determine what, if anything, the city will concentrate its population on producing. These are the choices:

- **Default Focus:** The city allocates its citizens to produce a balanced amount of food, culture, science, gold, and so forth.
- Food Focus: The city concentrates on acquiring food, which means it will grow faster.



Production Focus: The city concentrates on production, so that it will produce units, buildings and Wonders more rapidly.

...And so forth. "Avoid Growth" is useful if your civilization faces mounting unhappiness from population pressure.

Note that this will not override any "locked" tile you've set. If you want the city to take over control of that population, you'll have to unlock the tile by clicking on it.

## **Unemployed Citizens**

This section is visible only if you have any unemployed citizens.

Click on the "+" next to "Unemployed Citizens" to open this panel; click on the "-" to close it. Citizens in this list are neither specialists nor are they working the land around their cities: they're unemployed. An unemployed citizen produces just 1 production per turn, while still consuming the same amount of food as all other citizens. Click on an unemployed citizen and he will go to work any available tile outside of the city. Or you can click on an open Specialist slot in a building: the unemployed citizen will go to work as a Specialist in the building.

#### Wonders

This panel displays any Wonders the city has produced. Hover the cursor over a Wonder to learn more about it.

## **Buildings**

Click on the "+" next to "Buildings" to open this panel; click on the "-" to close it.

This panel displays the buildings the city has produced. Again, hover your cursor over a building to get more details on it.

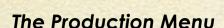
If the building has Specialist slots, you can click on an open slot to order a citizen to become a specialist in that building. If a building has specialists, click on them to remove them from the building. They'll go to either the Unemployed Citizens display or to an available tile to work.

## Buy a Tile

This allows you to buy a tile when you can afford it. Click on this button and it will show you how much the next tile will cost. (Remember that the price goes up for each tile you purchase.) At the same time, the tiles available for purchase will have symbols appear on them and the cursor will change to a "purchase tile" cursor. Click on an available tile to purchase it, or click on "Cancel" to stop purchasing tiles.

## Return to Map

This button closes the City Screen and returns you to the Main Map.



This shows the item (unit, building, Wonder or project) currently under production as well as its game effects/stats and the number of turns required to complete construction. Click on "Change Production" to order the city to halt production on the current item and switch to another.

#### **Purchase**

Click on "Purchase" to order the city to purchase an item. The Purchase Menu will appear; click on an item to purchase it. Note that the city isn't purchasing the item it is presently working on; after the purchase the city will continue to construct the item (unless unable to do so). So for example, if a city is working on an archer and has 4 turns left and you purchase an archer, you'll get the purchased archer immediately, and the one that's under construction 4 turns later – unless of course you change production after purchasing the first archer.

## **Units in Cities**

#### **Combat Units**

Only one combat unit may occupy a city at a time. That military unit is said to "Garrison" the city, and it adds a significant defensive bonus to the city. Additional combat units may move through the city, but they cannot end their turn there. (So if you build a combat unit in a city with a garrison, you have to move one of the two units out before you end your turn.)

### **Non-Combat Units**

Only one non-combat unit (Worker, Settler, or Great Person) may occupy a city at a time. Others can move through, but they cannot end their move in the city. Thus, a city may have at most two units in it at the end of a turn: one combat unit and one non-combat unit.

## **Construction in Cities**

You may construct buildings, wonders, or units in a city. Only one can be constructed at a time. When construction is complete the "CHOOSE PRODUCTION" alert message will appear; click on this to access the "City Build Menu" and choose the next item to construct.

## The City Build Menu

The City Build Menu displays all of the units, buildings and wonders that you can construct in that city at that time. As your technology increases new items will appear and obsolete items will disappear. Each entry tells you how many turns it will take until construction is complete. If an entry is grayed-out, then you are currently unable to construct the item. Roll your cursor over the entry to see what you're missing.

## **Changing Construction**

If you wish to change what a city is constructing, you may do so on the City Screen. The production already expended on the original item is not applied to the new item; however,



it remains "on the books" for a while and if you later order that city to resume construction on the original item, it may get the benefit of some or all of the earlier production. The longer the delay, the more production is lost.

## **Constructing Units**

You can build any number of units in a city (as long as you have the required resources and the unit hasn't become obsolete). Since you can only have one combat and one non-combat unit in a city, you may have to move the newly-constructed unit out of the city immediately after it's built.

See "Units" on page 45 for more details.

## **Constructing Buildings**

Only one building of each kind may be constructed in a city: you cannot have duplicate buildings in the same city. Once you've constructed a building, that building will disappear from that city's City Build Menu. (You can still build the same building in another city, of course.)

See "Buildings" on page 75 for more details.

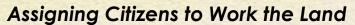
## **Constructing Wonders**

There are two kinds of Wonders in the game: National Wonders and World Wonders. Each civilization may construct a single copy of a National Wonder (in other words, each civ may build one National Epic, but no civ may build two). Only one of each World Wonder may be constructed anywhere in the world: once one civ has constructed one, no other civ may do so. Wonders will disappear from the City Build Menu once you can no longer construct them. If another civ completes construction of a World Wonder while you are building it, you will receive a gold bonus to compensate you for your efforts, and you'll have to begin construction on something else.

See "Wonders" on page 110 for more details.

## **Working the Land**

Cities thrive based upon the land around them. Their citizens "work" the land, harvesting food, wealth, production and science from the tiles. Citizens can work tiles that are within three tiles' distance from the city and that are within your civilization's borders. Only one city can work a single tile even if it's within two tiles' distance from more than one.



As your city grows, it automatically assigns its citizens to work the lands around it. It seeks to provide a balanced amount of food, production and wealth. You may order a city's citizens to work other tiles – for example, if you want a certain city to concentrate on generating wealth or production. See the "The City Screen" on page 67.



## Improving the Land

While certain tiles naturally provide good amounts of food, wealth, and so forth, many can be "improved" to provide even more, thus increasing a city's growth, wealth, productivity, or science. You need to build "Workers" to improve the lands. Once you have a Worker, you can order it to construct improvements – such as farms, mines, trading posts and so forth – that will make the land around your cities far more productive.

See "Workers and Improvements" on page 86 for more details.

## **Specialists**

When a city is first created, all of its citizens (population) will work the tiles around the city, generating food, production, gold, etc. Later on, you can construct certain buildings which allow you to reassign some of the citizens to work in the building as specialists.

For example, the Library has 2 "slots" for "scientist" specialists. Once you've constructed a Library in a city, you can assign 1 or 2 citizens to work in that Library as scientists. (Note that not all buildings create specialists; see the Buildings section in the Civilopedia.)

There are four different classes of specialists. The type a citizen becomes depends upon the type of building he is assigned to work in.

#### **Artist**

An artist specialist produces culture and generates points toward a Great Artist (see "Great Artist" on page 100). Artists are assigned to culture-related buildings like Temples and Museums.

## **Engineer**

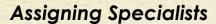
An engineer specialist produces production (hammers) and generates points toward a Great Engineer. Engineers are assigned to production-related buildings like Workshops and Factories.

## Merchant

A merchant specialist produces gold and generates points toward a Great Merchant. Merchants are assigned to wealth-related buildings like Markets and Banks.

## Scientist

A scientist specialist generates science (beakers) and generates points toward a Great Scientist. Scientists are assigned to science-related buildings like Research Labs and Universities.



To assign a specialist, go to the City Screen. Click on the "specialist slot" in the building where you want to assign the specialist. A citizen will be removed from working a tile and assigned to work in the building. If you click on the slot again, the citizen will be removed from the building and reassigned to work in the fields.

See "The City Screen" on page 67 for more details on assigning citizens to work tiles and as specialists.

# **Effects of Assigning Specialists Upon City Output**

Remember that a citizen working in a tile is generating something for the city – it may be food, production, gold, culture, or science. Once that citizen is assigned as a specialist, he or she will not be working the tile, and whatever he or she was producing will be lost. Therefore it's a good idea to check your city's food, gold and production generation after creating specialists.

# **Unemployed Citizens**

If a Citizen is not assigned to work in the fields and is not a specialist, that Citizen is "unemployed." It still provides 1 production to the city.

# **City Combat**

Cities may be attacked and captured by enemy units. Each city has a "Combat Strength" stat which is determined by the city's location, its size, whether any military units are "garrisoned" in that city, and whether defensive buildings such as walls have been constructed in the city. The higher the city's defensive value, the harder it is to capture the city. Unless the city is extremely weak or the attacking unit is extremely strong, it will take multiple units multiple turns to capture a city.

See "Combat" on page 54 for details on warfare in general.

# Attacking a City

To attack an enemy city, order your melee unit to enter the city's hex. A round of combat will ensue, and both the unit and the city may take damage. If your unit's hit points are reduced to zero, it is destroyed. If the city's hit points are reduced to zero, your unit captures the city.

## **Attacking with Ranged Units**

Although you can attack a city and wear it down with ranged units, you cannot capture the city with a ranged unit; you must move a melee unit into the city to take it. Similarly, water and air units cannot capture a city, though they can wear its defenses down to nothing. See "Air Combat" on page 119 and "Naval Combat" on page 59 for more info.

# **Defending a City**

There are a number of things you can do to improve a city's defenses. You may "garrison" a strong unit in the city. A melee unit will greatly increase the city's defensive strength, while a



ranged unit will fire at nearby enemy units.

You may also construct Walls and Castles that will improve the city's strength. A city on a hill gets a defensive bonus as well.

No matter how powerful a city is, however, it is very important to have units outside the city supporting it, to injure the attacking units and to stop them from surrounding the city and getting huge flanking bonuses against it. See "City Combat" on page 59 for more details.

# Conquering a City

When your unit enters an enemy city, you have three choices: you can raze the city, you can annex it and make it part of your empire, or you can make it into a puppet state. Each has its own benefits and costs.

# Razing the City

If you raze the city, it's gone. For good. All of its buildings, wonders, and citizens are no more. We hope you're proud of yourself, you big bully! While there are some good reasons for razing a city, mostly to do with your population's happiness (see below), this extreme behavior does have significant diplomatic consequences – i.e., other civs and city-states may be less likely to ally with you if they think you're a bloodthirsty maniac. You can raze the city immediately upon capturing it or at any point after that.

### INDESTRUCTIBLE CITIES

You can't raze a city that you founded. (Some other civ can, but not you.) Also, you cannot raze a city-state or another civ's capital city.

# **Annexing the City**

If you annex the city, you make it a part of your empire. You have total control over the city, just as if you had constructed the city yourself. The one downside to annexation is that doing so makes your citizens very unhappy, and you will be required to construct happiness-related buildings like courthouses and colosseums or connect up to luxury resources to counteract their extreme displeasure. Annexing too many cities too rapidly can bring your empire to a grinding halt.

See "Happiness" on page 107 for more details.

# Making the City a Puppet

If you make the conquered city a puppet, you gain the benefit of the city's research and its output of wealth, while taking a much smaller hit to your citizens' happiness. However, you do not control the city's production. It makes the buildings it chooses and it creates no new units or wonders at all. Thus you'll have to provide the military force for its defense, and if you want to make the city more efficient, you'll have to order your civ's Workers to improve its land.

You can annex a puppet city at any time. To do so, click on the city's banner.



# BUILDINGS

A city is more than a bunch of homes. It contains schools and libraries, markets and granaries, banks and barracks. Buildings represent the improvements and upgrades that you make in a city. Buildings can increase the city's rate of growth, can speed production, can increase the science of a city, can improve its defenses, and can do lots of other good things as well. See "Building List" on page 162 or the Civilopedia Building section for more details. A city that has no buildings is pretty weak and primitive and will probably remain fairly small, while a city with a lot of buildings can indeed grow to dominate the world.

# **How to Construct Buildings**

When a city is ready to construct something, the city's "Production Menu" will appear. If a building is available to be constructed, it will appear on this menu. Click on the building to order the city to begin construction.

# **Changing Construction and Purchasing Buildings**

You can change a city's construction orders on the City Screen. You can expend gold to purchase a building on this screen as well. See "The City Screen" on page 67 for details.

# **Building Prerequisites**

With the single exception of the monument, which has no prerequisites and is available to build at the start of the game, you need knowledge of a specific technology to construct any building. For example, you must learn bronze working before you can build a barracks. Some buildings have resource prerequisites as well – for instance a city must have an improved source of horses or ivory nearby to construct a circus.

Also, some buildings have building prerequisites. You can't build a temple in a city unless you've already constructed a monument there.

# Specialists and Buildings

Certain buildings allow you to create "specialists" out of your citizens to work those buildings. Specialists improve the output of the building, and they also increase the city's output of Great People. See "Specialists" on page 72 and "Great People" on page 99 for details.

# **Building Maintenance**

There's one downside to buildings: most of them cost gold to maintain. The price depends upon the building in question, and can range from 1 to 10 per turn. The gold is deducted from your treasury each turn. See "Gold" on page 103 for more details on maintenance.



# The Palace

The palace is a special building. Part building, part Wonder, the palace automatically appears in the first city you build, which makes that city the capital of your empire. If your capital city is captured, your palace will automatically be rebuilt in another city, making that city your new capital. If you subsequently retake your original capital, the palace will move back to its original location.

The palace provides a small amount of production, science, gold, and culture to your civilization. If you connect other cities to the capital by road or harbor, you will create trade routes which generate additional income.

# **Captured Cities**

If a city is captured, its World Wonders are captured as well. A city's National Wonders are destroyed when the city is captured.

The city's culture and military buildings (temples, barracks, etc.) are always destroyed when the city is taken. All other buildings have a 66% chance of being captured intact.



# FOOD AND CITY GROWTH

Plentiful food is the single most important factor determining the rise of human civilization. While humans had to spend virtually every waking moment hunting and gathering food for themselves and their families or tribe, they had little time or energy for other pursuits – making cave paintings, for instance, creating a written language, or discovering muons. Once surplus food is available, all else is possible.

# Cities and Food

A city requires 2 food per citizen (another term for "population") per turn to avoid starvation. A city acquires food (as well as production and gold) by assigning its citizens to "work" the land around the city. The city can work any tile within three spaces of the city that is also within the civilization's borders, provided as well that it is not being worked by another city. Left to its own devices, the city will assign as many citizens as needed to acquire its food. If not enough is available, the city will starve, losing citizens until it can support itself.

# Manually Assigning Citizens to Work the Land

You can manually assign a city's citizens to work specific tiles, for example, demanding that the city concentrate its efforts on growth or on production or gold. See "The City Screen" on page 67 for more details.

# **Getting More Food**

Certain tiles provide more food than others, and cities near to one or more of these tiles will grow faster. In addition, workers can "improve" many tiles with farms, increasing their output of food.

## **Best Food Tiles**

### BONUS RESOURCES

Tiles with "bonus" resources provide a lot of food once a worker constructs the appropriate improvement on the resource. These include bananas, cattle, deer, fish, and wheat. See "Workers and Improvements" on page 86 and "Resources" on page 36 for more details.

### OASIS TILES

Oases provide a lot of food, particularly when compared with the desert in which they're usually found.

## FLOOD PLAINS

Flood plains provide a lot of food too.

### GRASSLAND AND JUNGLE

These tiles also provide a good amount of food.



# **Improvements**

Workers can construct farms on most tiles to improve their food output.

# **Buildings, Wonders and Social Policies**

Certain buildings, wonders and social policies will affect the amount of food a city produces or how much it needs in its "bucket" to grow (see below).

# **Maritime City-States**

If you befriend a maritime city-state, it will provide food to all of your cites, with your capital getting the largest portion of the food.

# We Love the King Day

If a city goes into "We Love the King Day" (see "Resources" on page 36) its surplus food input increases by 25%. (If no surplus, no benefit.)

# City Unhappiness

If your civilization is unhappy, then the city will produce *less* food. The city will produce enough food to feed its citizens, but the amount of excess food it produces is decreased by 67%.



Each turn, a city's citizens gather a certain amount of food from the land around it and from various other sources as described above. The city's citizens have first call on that food, and they consume 2 food for each population point (so a city of population 7 consumes 14 food each turn). Any food left over is put into the poetically-named "City Growth Bucket."

# The City Growth "Bucket"

The city growth bucket contains all of the excess food produced by a city each turn. When the quantity of food reaches a specific amount, the city's population (citizens) will increase by 1; then the city growth bucket is emptied and the process begins all over again. The amount of food needed for population growth increases significantly as the city gets bigger. The City Info Box in the upper left-hand corner of the City Screen tells you how many turns until the city grows; and the "Food" entry in that box tells you how much food the city is currently producing each turn. Hover your cursor over the "Food" entry to see exactly how much food you need to fill the City Growth Bucket.

# **Settlers and Food Production**

Settlers can only be constructed in cities of size 2 or larger. During construction, Settlers consume a city's production and all of the city's excess food intake. As long as the Settler is in production, the city will not grow or add food to its growth bucket. (Note that Settlers don't subtract food from the bucket; they consume excess food being produced, stopping more food from going into that bucket.)



Culture is a measurement of your civilization's commitment to and appreciation of the arts and humanities – everything from cave paintings and Tiki heads to "Hamlet," or Beethoven's Ninth Symphony to Lady Gaga's latest video. In the game culture has two main effects: it increases the size of your cities' territories (and therefore your overall borders) and it allows you to purchase new "Social Policies."

Most importantly, if you acquire enough culture you can win a "cultural victory."

# **Getting Culture**

Your civilization acquires culture in a variety of ways:

- Your Palace: Your palace (created when you build your first city) produces 1 culture point per turn.
- Ancient Ruins: An ancient ruin might give you a big dose of culture.
- **Buildings:** Certain buildings provide culture. The monument and temple are two early examples.
- **Specialists:** Specialists, particularly artists, generate culture.
- Wonders: Some wonders churn out culture. The Hermitage, Heroic Epic and National Epics are three national wonders that give you culture, and there are plenty more to discover.
- **Social Policies:** Certain social policies will increase your culture output. The "Piety" branch has a number of policies targeted at culture.
- **Great Artist**: A Great Artist can construct a "Landmark" improvement in a tile. If your city works that tile, it will gain a lot of culture.
- City-States: Some city-states give you culture if your relations are friendly.

# **Expanding Territory**

As a city gains culture, it will acquire additional tiles in the surrounding unclaimed territory. The faster it gains culture, the faster its territory will grow. Each city acquires territory depending upon its own cultural output. When it reaches a certain level, it will "claim" a new tile (if any are available).

Check out the City Info Box on the City Screen to see how much culture a city is producing each turn and how long until the city grabs another tile. The amount of culture required to get a new tile increases as the city's territory grows.

Note that you can also expend gold to "purchase" tiles; this is entirely independent of the city's own acquisition based upon its culture.

# **Acquiring Social Policies**

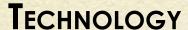
You acquire social policies based upon the total amount of culture produced by all of your cities. Check out the Status Bar at the top of the Main Screen to see how much total culture your civ has accumulated, how much culture the civ is producing each turn, and how much is required before getting a new social policy.



When you have accumulated enough culture, you can go to the Social Policies Screen and buy a new policy. (See "Social Policies" on page 93 for details.) Each time you purchase a new social policy the price of the next one increases.

# **Cultural Victory**

Remember that you can achieve victory by acquiring enough social policies and then constructing the "Utopia Project." See "Victory and Defeat" on page 115 for details.



Technology is one of the driving forces behind civilization. It was advances in the technologies of agriculture and fishing that allowed cities to grow and thrive. It was advances in weaponry and masonry that allowed some cities to drive off the jealous barbarians who sought to steal their food and plunder their wealth. It was advances in medicine and sanitation that fought off the other great threat to civilization – disease.

Advancing technology makes a civilization stronger, bigger, smarter, and a much tougher opponent. It is critically important for a civilization to keep up technologically with its neighbors. Everything else being more or less equal, it is possible for a backwards civilization to overcome a more advanced neighbor, but it's pretty difficult to think of many examples of such occurring in history.

# **Technology and Beakers**



In Civilization V, each technology you acquire gives your civilization access to some advanced unit, building, resource or wonder, or gives you some other tangible benefit. Each new tech makes your civilization that much more powerful. You acquire technology by accumulating "beakers," which

represent the amount of science your civilization possesses.

Every turn your civilization gets a number of beakers added to its science pool. Each technology costs a certain number of beakers to learn; when you've accumulated enough beakers, you acquire the technology. When you get the new tech your beaker pool is depleted and you start accumulating all over

again, saving up for the next tech.

# Where Do Beakers Come From?

Beakers come from your citizens (the population of your cities). Each turn you get a base number of beakers equal to the combined population of all of your cities. The larger your cities, the more beakers you generate.

In addition to the beakers generated by your base population, you get 3 beakers from your palace. (Once you build your first city you'll generate 4 beakers each turn: 1 from your single citizen and 3 from the palace). You can earn additional beakers by constructing certain buildings or wonders, and by adopting certain social policies.

# Increasing Beakers (and Speeding Up Research)

Here are some ways you can speed up your research (or your acquisition of technology).

### ANCIENT RUINS

Some ancient ruins will give you new technology. This is not guaranteed, but it's another good reason to search them out and claim them before anybody else does.



### TRADE

You can enter into "Research Agreements" with other civilizations once you have learned the Writing technology. Under such agreements, each civ pays 150 gold and in return gets a random free technology at the conclusion of the agreement.

### BUILDINGS

You can construct a number of buildings which will increase your acquisition of beakers. The Library increases each citizen's output of beakers by half. The University will do much the same and it allows two scientist specialists to be assigned (see "Specialists" on page 72 for more information). See the Building section of the Civilopedia and "Building List" on page 162 for details on these and other knowledge-producing buildings.

### WONDERS

A number of wonders will greatly enhance your civ's technology. The National College national wonder will increase your civ's beaker output by 50%. The Great Library immediately grants your civ one new technology. See the Wonder section of the Civilopedia for more details.

### GREAT SCIENTIST

A Great Scientist can earn you an immediate free tech, or the unit can be expended to construct an Academy improvement, which provides 6 beakers/turn when the tile is worked. See "Great People" on page 99 for more details.

### THE RATIONALISM BRANCH OF SOCIAL POLICIES

The Rationalism branch of social policies is full of policies which can increase your research. This branch becomes available in the Renaissance era. See "Social Policies" on page 93 for details.

# Choosing a Technology to Study

When you have constructed your first city, the "Choose Research" menu appears and you must select which technology you wish to study. Eventually you'll acquire enough beakers and you'll learn that tech, and the "Choose Research" menu will reappear and you'll have to decide on the next tech. There are over 70 techs to study, and if you get them all you can start on "Future Techs" which increase your game score.



### The Choose Research Menu

When you need to pick a new technology, the Choose Research menu appears on the left edge of the screen. At the top it displays the technology you've just finished learning (it displays "Agriculture" the first time it appears). Below that is the "Open Technology Tree" button (more about that later), and beneath that is a list of the technologies available to you at that time. Each technology displays the number of turns it will take you to get that tech, as well as icons representing the various buildings, improvements, wonders and so forth that the technology allows (or "unlocks"). You can hover your mouse atop an icon or technology to learn even more info about it.

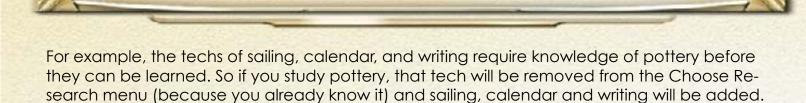
Click on a tech to choose to research that tech. The Choose Research menu will disappear, and a large icon will appear in the upper left-hand corner of the screen, showing you which tech you are currently researching and how long until completion.

# **Changing Research**

You can change which tech you are researching at any time. To do so, click on the tech icon in the upper left hand corner of the screen. The Choose Research menu will reappear, and you can choose any of the techs it lists as available. You can continue to research the original tech later at the point you stopped; the previous research is not lost.

# Which Technologies are Available

At the start of the game, there are just a few technologies available to research – generally animal husbandry, archery, pottery, and mining. All of the other technologies in the game have one or more prerequisite techs that must be learned before they can be studied. When you've learned the prerequisite techs, the newly-available tech will appear on the Choose Research menu.



Some technologies require knowledge of 2 or 3 prerequisite technologies, not just one. Those

techs will not appear until you've learned all of the required techs.

The Mighty Technology Tree

To see how all of this works in the game, check out the amazing Technology Tree. It displays all of the technologies and shows how they are intertwined. You can click on a tech to order your civilization to research it – if your civ doesn't know the prerequisite techs it will research them as well. The tech tree will plot the quickest route to the requested tech, and you will research the necessary precursors in the order it displays.

The Tech Tree can be reached from the Choose Research menu, or by pressing the F5 key.

The Technology Victory

Once you have learned enough technology, you can construct a space ship and send a colony off to Alpha Centauri. If you do this before any other civilization achieves any other kind of victory, you win a technology victory.

See "Victory and Defeat" on page 115 for more details about the various ways to achieve victory in Civilization V.



# WORKERS AND IMPROVEMENTS

Workers represent the men and women who build your empire. They clear the jungles and build the farms which feed your cities. They dig the mines that provide you with precious gold and mighty iron. They lay the roads which connect your cities. Although they are not military units, workers are important.

Improvements increase the production, gold, and/or food output of tiles. They also provide access to the special bonuses provided by certain resources. If you do not improve your land, your civilization will almost certainly be overwhelmed by others which have.

# **Creating Workers**

Workers are built in cities, just like other units.

# **Workers in Combat**

Workers are non-military units. They are captured when an enemy unit enters their tile, and they can be damaged by ranged attacks as well (they heal like other units, but they do not gain experience or receive promotions). Workers cannot attack or damage any other unit. It's a really good idea to stack a military unit with a worker if it's in dangerous territory.

# The Worker Action Panel

When an active worker is in a location where it can do something – say construct a road, build an improvement, or clear land – the Worker Action Panel is visible. This panel displays all actions available to the worker at that location. Click on an action to order the worker to start building. Worker actions take time; hover the cursor over the action to see how long it will take the worker to complete that action.

# **Clearing Land**

Once their civilization has learned the mining technology, workers can remove forests from tiles. Once they have learned bronze working, they can remove jungle. And once they have learned masonry, workers can drain marshes. Once these features are removed, they are gone forever.

## Time to Clear Land

Remove Forest: 3 Turns Remove Jungle: 6 Turns Drain Marsh: 5 Turns



# **Building Roads**

Workers can construct roads once their civilization has acquired the wheel technology. Roads can be constructed in friendly or neutral territory. They can be built in any terrain and across any features, except for mountains, natural wonders and ice (and of course they can't be built in water tiles). Roads can be constructed in tiles with resources and/or improvements. See "Road and Railroads" on page 52 for more details.

### Time to Construct a Road

It takes a worker 3 turns to construct a road in any tile.

### Roads and Trade Routes

If there is a road between your capital and another of your cities, those cities have a "trade route." Trade routes give your civilization gold bonuses each turn, the amount depending upon the size of the cities involved. (Harbors can also create trade routes between coastal cities.) See "Trade Routes" on page 103 for details.

# **Constructing Improvements**

Once a civilization has learned the appropriate technology, its workers can construct improvements.

# Where Improvements Can Be Constructed

Improvements can be built only in appropriate locations. (Farms may not be built on ice, for example, and mines can't be built atop cattle resources.) The Worker Action Panel will only display improvements that your civilization has the technology for and that are appropriate for the tile the active worker occupies.

Generally, farms can be constructed in any tile that doesn't contain a resource. If the tile does contain a resource, only the appropriate improvement can be constructed.

# **Duration to Construct**

Each improvement type takes a certain amount of time. The times listed below are for standard games; it will take longer to construct improvements in marathon games, and shorter in games started in later eras.

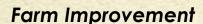
# **How Much Time is Left?**

Hover your cursor over a worker to see how much time is remaining on the current construction job.

# Leaving and Resuming an Improvement Project

If you leave a project in the middle and then resume the same project later on, the time already spent will be subtracted from the amount of time it takes to complete the project.

If you change projects, however, all progress from the previous project will be lost.



The farm is the earliest and most commonly-constructed improvement. All civilizations begin play knowing how to farm. Farm improvements can be constructed in most tiles, and atop a number of resources.

**Technology Required:** Agriculture (acquired at the start of the game)

May Be Constructed: Anywhere but ice. Farms increase the tile's output by 1 food.

**Duration of Construction:** 6 Turns

**Forest:** Farms may be constructed in forested tiles once you learn the mining tech. The forest is removed when the farm is built.

Total Construction Time: 10 Turns

Jungle: Farms may be constructed in jungle tiles once you learn the bronze

working tech. The jungle is removed when the farm is built.

Total Construction Time: 13 Turns

Marsh: Farms may be constructed in marsh tiles when you learn the masonry

tech. The marsh is removed when the farm is constructed.

Total Construction Time: 12 Turns

**Resources Accessed:** Farms can access the wheat resource, increasing the tile's output by 1 food and 1 gold.

## Mine Improvement

The mine improvement is learned when your civilization acquires the mining tech. It can be used to increase the production output of many tiles, and it also unlocks a variety of resources. The mine is as important as farming.

Technology Required: Mining

May be Constructed: Mines can only be built on Hills or Resource tiles. Mines increase a tile's output by 1 production.

**Duration of Construction:** 6 Turns

**Forest:** Mines may be constructed in forested tiles. The forest is removed when the mine is built.

Total Construction Time: 10 Turns.

**Jungle:** Mines may be constructed in jungle tiles once you learn the bronze working tech. The jungle is removed when the mine is built.

Total Construction Time: 13 Turns

**Marsh:** Mines may be constructed in marsh tiles when you learn the masonry tech. The marsh is removed when the mine is constructed.

Total Construction Time: 12 Turns

**Resources Accessed:** Mines unlock the iron, coal, aluminum, uranium, gems, gold and silver resources. See "Resources" on page 36 for details.

## Fort Improvement

The fort improvement is a special improvement that is constructed by workers and provides protection for military units in friendly territory. The fort is destroyed when a non-friendly unit enters the space or if the space becomes owned by another civilization.

**May be Constructed:** The fort may only be built in a friendly or neutral tile. It may be constructed atop any resource, but constructing a fort atop another improvement will destroy the previous improvement.

Technology Required: Engineering

**Construction Time:** 7 Turns

Defensive Bonus of the Fort: 50%

CAMP

Technology Required: Trapping

Construction Time: 6 Turns

Resources Accessed: Ivory, Fur, Deer

LUMBERMILL

Lumbermills increase a forested tile's output by 1 production, without destroying the forest.

Technology Required: Construction

**Construction Time:** 6 Turns

May Be Constructed On: Forests.

OIL WELL

Technology Required: Biology Construction Time: 8 Turns

**Resource Accessed:** Oil (on land; offshore platform required for oil found at sea)

**PASTURE** 

**Technology Required:** Animal Husbandry

Construction Time: 7 Turns

Resources Accessed: Horse, Cattle, Sheep

**PLANTATION** 

Technology Required: Calendar

Construction Time: 5 Turns

Resources Accessed: Bananas, Dye, Silk, Spices, Sugar, Cotton, Wine, Incense

QUARRY

**Technology Required:** Masonry

Construction Time: 7 Turns
Resource Accessed: Marble



## **Trading Post**

The trading post increases output of a tile by 1 gold. It doesn't access a resource.

Technology Required: Trapping

**Construction Time:** 8 Turns

May Be Constructed On: Any land tile but ice.

# **Pillaging Roads and Improvements**

Enemy units can "pillage" roads and improvements, rendering them temporarily useless – no resource, no movement bonus, and so forth. It is as if the worker never built the road or made the improvement.

A unit may even pillage its own civilization's improvement (typically to deny it to another civilization's city).

A unit that pillages an improvement may gain a gold bonus.

# Repairing Roads and Improvements

A worker may repair a pillaged road or improvement. It takes a worker 3 turns to repair any road or improvement.

# Fishing Boats and Oil Platforms

Water improvements (see "Work Boats" on page 92) are totally destroyed when pillaged. They cannot be repaired; they must be rebuilt entirely (which consumes another Work Boat). Guard your water improvements!

# **Great People Improvements**

Great People can construct special improvements. See "Great People" on page 99 for details.

# WORKER ACTION LIST



**Build Road:** Build a road improvement on the current tile. Roads can be built on any passable land tile.



**Build Railroad:** Build a railroad improvement on the current tile. Railroads can be built on any passable land tile.



**Build Farm:** Construct a Farm improvement on the current tile. Farms increase the Food production of the tile. Some resources like Wheat require Farms to be built on them in order to be used.



**Build Mine:** Construct a Mine improvement on the current tile, improving its production. Some resources like Iron or Gems require Mines in order to be used.





**Build Trading Post:** Construct a Trading Post improvement on the current tile. This improves the Gold output of the tile.



**Build Lumbermill:** Build a lumbermill on the current tile, which must be covered with a Forest feature. Lumbermills provide extra Production.



**Build Pasture:** Construct a Pasture on the selected tile. Resources like Horses and Cattle require Pastures.



**Build Camp:** Construct a Camp on the selected tile, allowing the use of resources like Furs and Deer.



**Build Plantation:** Construct a Plantation on the current tile. Plantations are needed in order to use many of the Luxury Resources.



**Build Quarry:** Construct a Quarry on the current tile. Marble resources require Quarries to be built on them in order to be used.



**Build Oil Well:** Construct an oil well on the current land tile. This allows for the use of the Oil resource.



**Remove Jungle:** Order the Worker to clear the selected tile of any Jungle Feature. This removes any benefits provided by the Jungle.



**Remove Forest:** Order the Worker to clear the selected tile of any Forest Feature. This removes any benefits provided by the Forest.



Remove Marsh: Order the Worker to clear the selected tile of any Marsh Feature.



**Remove Route:** Order the Worker to clear the selected tile of any roads or railroads.



**Repair:** Repair any damage caused by unit pillaging. The improvement and any resources on this tile cannot be utilized until it is repaired.



**Automate Build:** Automate all the worker's actions. This unit will continue working until you manually cancel.



# WORK BOATS

Work boats are special worker units built in coastal cities. They can create fishing boats and offshore platform improvements in water. Unlike land workers, Work Boats are consumed when they create an improvement.



**Build Offshore Platform:** Order the unit to create an offshore drilling platform over an oil resource in the ocean. The unit is consumed in the process.



**Fishing Boats:** The work boat will construct a fishing boat over the coastal resource, consuming it in the process.

# SOCIAL POLICIES

Social policies represent the way you choose to govern your people. Will you be an authoritarian ruler, sacrificing a little freedom for discipline and increased productivity? Will you organize your civilization to have a strong military, or will you concentrate your efforts on expanding culture and borders? Do you want to set up your civ as a monarchy or democracy? There are 10 different branches to choose from, each headlining a specific aspect of government.

Social policies have concrete effects for gameplay. Some increase your cities' production, while others generate more wealth, and still others help create a more effective military. There are no right or wrong policy choices in the game, and one policy may be better for a given circumstance than other, or better suit your personal playing style. Try them out and see.

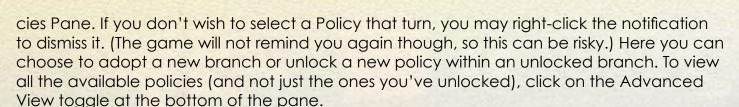


Policies are arranged into 10 separate branches, each of which (once adopted) unlock a tree of five different policies. Unlocking these individual policies will give you the benefits described, and can even lead to a Cultural Victory.

# **Acquiring Social Policies**

You can choose to adopt and unlock a social policy once you have gained enough culture points, based upon the difficulty level of your game. For example, on the Settler difficulty level, the first policy unlocks at 15 culture points and on Prince, it unlocks with 25 culture points, with subsequent levels costing a little bit more. During play, the cost of each Policy increases with the more you adopt. To see how much culture you currently have and when the next policy becomes available, hover your mouse over the Culture icon on the Status Bar. You can read more about accruing culture in the Culture section.

Once you have enough culture, a notification will alert you on your turn. Click on the Social Policies icon in the top right corner (located next to your advisors) to bring up the Social Poli-



When you have acquired the requisite amount of culture, click on the "Adopt" button to open up the chosen branch for exploration – you must first spend points to adopt the branch before unlocking any of the individual policies. Each branch adoption will give you some benefit immediately, with the individual policies within each providing more bonuses of the same nature. You must select any available policies before the end of the turn unless the "Allow Policy Saving" option was selected in advanced game set-up.

Some branches (like Autocracy and Freedom) may not be unlocked and active at the same time, and many branches only become available once a later era has been reached.

# **Social Policy Branches**

There are 10 different policy branches to explore, each describing a different mode of government. Each branch provides an immediate bonus when adopted, and each individual policy provides another like bonus once unlocked.

# **Tradition**

Tradition is a branch best chosen by small empires, as many of the policies within directly improve the Capital City. Adopting Tradition will immediately provide a bonus of +3 Culture in Capital and greatly increased rate of border expansion. Tradition is available at the start of the game.



## Liberty

Liberty is well-suited for civs who wish to rapidly expand their influence over others and provides 1 additional culture in every city upon adopting it. Liberty is available at the start of the game, and may not be active at the same time as Autocracy.

## Honor

Choosing the policy of Honor improves the effectiveness of a civ's armies and militaries. Upon adoption, this policy will grant all units a 25% combat bonus against Barbarians, and a handy notification will be provided each time a new Barbarian Encampment spawns inside revealed territory. Honor is also available at the start of the game.

## **Piety**

Piety increases the Happiness and Culture of the adopting civ, immediately granting a bonus to the civ's Happiness total by 2 points. Piety becomes available once the Classical Era



is reached, and it may not be active at the same time as Rationalism. For players looking to achieve a Cultural Victory, this is a nice place to start, as the branch provides boosts to culture and even free policies.

# **Patronage**

Patronage is a useful policy for those wanting to enhance their friendship status with city-states. Upon adoption, Influence with City-States degrades 25% slower than normal. Patronage becomes available upon entering the Medieval Era.

### Commerce

Commerce provides bonuses to naval-minded civs, as well as those focused on producing large quantities of Gold. This branch boost Gold output in the Capital City by 25%. Commerce also unlocks upon entering the Medieval Era.

### Rationalism

The branch of Rationalism improves the civ's ability to use and generate Science, becoming available upon entering the Renaissance Era. Adopting this branch immediately causes the civ to enter a 4-turn Golden Age. Rationalism may not be active at the same time as Piety.

### Freedom

Freedom provides bonuses for Culture and Specialist production. With this branch, specialist populations in cities will produce only half the amount of Unhappiness that they normally would. Freedom becomes available upon entering the Renaissance Era, and cannot be active at the same time as Autocracy.

## Order

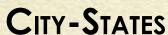
Players interested in creating massive, sprawling civs should turn to Order, as the strength of the empire is determined by the total number of cities it contains. Order will increase the production rate of all buildings by 15%, and becomes available for exploration upon entering the Industrial Era.

# **Autocracy**

This branch is well suited for those wishing nothing more than to crush their foes under the weight of their iron-plated boots. It is ideal for players who seek a Domination Victory. Autocracy reduces the Unit Maintenance fee by 33%, allowing the civ to field an even larger army at the same cost. This policy unlocks upon entering the Industrial Era, and cannot be active at the same time as Liberty or Freedom.

# **Cultural Victory**

If you fully explore five different branches on the Social Policies pane, you unlock the "Utopia Project." Building this project will net you a Cultural Victory! For more information, see "Victory and Defeat" on page 115.



City-States are the smaller political entities in Civilization V. They cannot win a game – they're not competing against you – but they can greatly assist or impede your progress towards victory. You can befriend City-States and gain a number of important benefits, you can ignore them and concentrate on bigger and more important foes, or you can conquer them and take their stuff. It's up to you.

# **Types of City-States**

There are three different "flavors" of city-states. Each can provide you with different benefits if you befriend or ally with them.

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### Cultured

A cultured city-state can help you improve your culture.

### Maritime

A maritime city-state can provide food to your civilization.

### Militaristic

A militaristic city-state can provide units to your army.

# **Communicating with City-States**

In order to communicate with a city-state, you must find it first. When one of your units encounters a city-state, the city-state will tell you what type it is (see "Types of City-States" on page 96), and it will often give you a gift of gold as well. (This is another good reason to explore the world!)

Once you have met, the city-state may periodically make contact with you to ask you to undertake "missions" (see "City-State Missions" on page 98). If you want to get in touch with the city-state, you can click on the city itself, or you can go through the Diplomacy Panel.

# City-State Influence

Your relations with each city-state are measured by "Influence Points" (IPs). They usually start at zero and your actions can increase or decrease them (yes, they can go quite negative!). Your current IP level is noted on the city-state's banner.

## GOLD: THE GIFT THAT KEEPS ON GIVING!

One of the most cost-effective ways to increase your IP total is to give a city-state gold. To give a city-state gold, click on the city-state itself and then pick the appropriate menu item.

### GIVE THEM UNITS

You can also give a city-state units. One way to do this is to move the unit into the city-state's territory and then click on the "Give Unit" button in the unit's Action menu. (You can also



give them units anywhere on the screen through the city-state Diplomacy screen.) It should be noted that gold usually is the better gift, unless the city-state is specifically requesting units.

### Doing Nothing

If you don't do anything, your IPs will tend to revert to zero over time: if your IPs are positive, they'll reduce by a small amount each turn. If they're negative, they'll increase by a small amount each turn. (The exact amount can vary based on the City-State's personality.) So if you want to maintain positive relations with a city-state, you'll have to periodically complete a mission or give them a gift.

### TRESPASSING

Note that you lose a handful of IPs per turn for each of your units "trespassing" in a city-state's territory. If you are friends with the city-state, you can move through its territory with no consequences.

# Influence Levels

### PERMANENT WAR

You've so totally angered the city-state that it will never accept peace with you. This occurs if you've gobbled up too many of the city-states around you – the survivors will band together and try to wipe you off the planet. They simply won't deal with you any more: there's nothing to do here but fight 'em off.

### WAR

While at war with a city-state, your influence will remain negative and they certainly won't give you any stuff. However, unless you're at permanent war or they're allied with one of your enemies, a city-state will always accept a peace deal.

### NEUTRAL

The city-state doesn't especially like or hate you. You can give them gold or do missions to improve your IP level, or you can degrade your IP by trespassing and suchlike.

#### FRIENDS

If you're "friends" with a city-state, the city-state will periodically give you gifts – a cultured city-state will give you culture; a maritime city-state will give you food; and a militaristic city-state will give you military units.

### ALLIES

If you're allied with a city-state, you'll get a stronger version of the benefits of friendship. In addition, the city-state will give you all of their luxury and strategic resources. Only one civilization can be allied with a city-state at a time – if multiple are eligible, whichever has the highest IPs gets the position.



Periodically, a city-state may announce a "mission" – perhaps it's being plagued by barbarians, for example, or its people seek knowledge of Natural Wonders, or perhaps they're being attacked by another civilization and they seek allies.

If you complete the mission before another civ does so, you'll earn Influence Points with the city-state.

# War of the City-States

You can declare war on a city-state at any time. You can do so through the Diplomatic Panel or by ordering one of your units to attack a city-state's unit or city. You can offer peace to a city-state through the Diplomatic Panel or by clicking on the city.

It's important to remember that if you attack too many city-states, many will declare war on you and you will not be able to make peace with them. This can be shockingly unpleasant if you're not ready for them.

# Liberating a City-State

If another civ has captured a city-state and you capture it from them, you have the option to "liberate" that city-state. If you do so, you'll immediately get a huge bunch of IPs from that city-state. In addition, that city-state will always vote for you during "World Leader" elections (see below).

# **Diplomatic Victory**

You win a Diplomatic Victory by winning an election for the position of World Leader once the UN is constructed. If going this route, remember that city-states will vote for whoever has the highest IP level, unless they have been "Liberated" by a civilization, in which case they'll vote for their liberator. (See the section on Victory for details.)

# GREAT PEOPLE



Great People are the artists, merchants, engineers, scientists and warriors who can, single-handedly, change the course of a civilization. They're people like Leonardo da Vinci, Andrew Carnegie, Louis Pasteur, and Robert E. Lee. Great People are extremely powerful. Great People are cool.

There are five types of Great People: Great Artists, Great Engineers, Great Merchants, Great Scientists, and Great Generals. The first four types are quite similar in functionality, while Great Generals are rather different: they are

generated differently and they have different effects upon play. Great Generals will be discussed in detail below; first, let's examine the other four types of Great People.

## **Generating Great People**

Great Artists, Engineers, Merchants and Scientists are created in cities by specialists and Wonders which generate "Great People" (GP) points. A city may generate no Great People points, or it may generate a single kind of GP points or it may generate multiple kinds of GP points. Each city's GP points are kept track of separately. (For example, Kyoto might generate 1 Artist and 2 Engineer GP points each turn. After 3 turns it would have 3 Artist points and 6 Engineer GP points. The two types of points are not pooled.)

When a city has enough of a specific type of GP points, the points are expended to generate a Great Person of that type. Once a Great Person is generated, the amount required for the next Great Person increases in *all* of that player's cities.

For instance, let's say that a player needs to acquire 10 GP points to get a Great Person. From the previous example, in five turns Kyoto would have enough Engineer GP points to create a Great Engineer. After the Great Engineer was created, Kyoto would have 0 Great Engineer points and 5 Great Artist points left, and the amount required for the next Great Person would increase to say 15 points. Eight turns later Kyoto would have 13 Great Artist points and 16 Great Engineer points, and it would generate another Great Engineer.

Note that a Garden building increases the rate at which you generate Great People, and that the "Warrior Code" social policy immediately generates a Great General.

## **Great Peoples' Abilities**

Each Great Person type has three abilities (but see "The Great General" on page 102).

- They can be expended to create a "Golden Age" (see next page).
- They can be expended to construct a Special Improvement.
- They have some other special ability.

Note that the names of the Great People have no effect upon play. Beethoven and da Vinci are both Great Artists and both have the same powers.



GOLDEN AGE

A "Golden Age" is a period of special productivity for a civilization. During a Golden Age, any tile which produces gold produces 1 extra gold, and any tile which produces production (hammers) produces 1 extra hammer. (Obviously this has no effect unless citizens are working the tiles.) The duration of the Golden Age depends upon the game difficulty and speed, and decreases each time a Great Person is used to begin one (this will never fall below 3 turns, however). The Great Person is expended when he or she creates a Golden Age.

### SPECIAL IMPROVEMENT

Each Great Person type can be expended to create a Special Improvement on a tile within your civilization's borders. The Special Improvement's effects depend upon which Great Person is creating it – a Great Artist's Special Improvement generates culture, for example, while a Great Merchant's generates cash.

A Special Improvement must be worked in order to have any effect. A Special Improvement can be pillaged and repaired like any other Improvement. If constructed atop a resource, the Special Improvement will *not* provide access to that resource.

Note that you have to move the Great Person out of the city and into your territory to construct a Special Improvement. See "Moving Great People" on page 102 for details.

### SPECIAL ABILITY

The Great Person's Special Ability can have major effects upon the game. Once again, each Great Person type has a different Special Ability. Some (but not all) Special Abilities require you to expend the Great Person.

## **Great Artist**



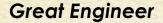
### SPECIAL IMPROVEMENT: LANDMARK

A Landmark Improvement provides loads of culture to the city.

### SPECIAL ABILITY: CULTURE BOMB

A Great Artist can "Culture Bomb" any tile inside or adjacent to your territory. That tile and all six surrounding it immediately become your territory. A Culture Bomb will "flip" foreign territory to your territory, but it won't flip

a foreign city (although the foreign city may suddenly find itself surrounded by your terrain). Flipping foreign terrain is not an automatic act of war, though some civilizations will no doubt find the act offensive. Note that another artist can flip the terrain back at a later point – there's no limit to the frequency or number of times that a tile can flip during a game.



### SPECIAL IMPROVEMENT: MANUFACTORY

You can expend an Engineer to create a Manufactory. A Manufactory produces huge amounts of production (hammers) for the city, if it is worked.

### SPECIAL ABILITY: HURRY PRODUCTION

You can expend a Great Engineer to create a sudden burst of production in a city. The production is immediately applied to whatever is presently being built in the city – unit, building or Wonder. This will usually be enough production to immediately finish all but the most massive Wonders, and it will drastically shorten their production time.

### **Great Merchant**

### SPECIAL IMPROVEMENT: CUSTOMS HOUSE

You can expend a Great Merchant to create a Customs House. When worked, a Customs House generates a lot of gold per turn for its city.

### SPECIAL ABILITY: TRADE MISSION

You can expend a Great Merchant while it is within a city-state's borders to conduct a "Trade Mission" with the city-state. This provides you with a huge chunk of gold, and it boosts your civ's relationship with that city-state.

### **Great Scientist**

### SPECIAL IMPROVEMENT: ACADEMY

You can expend a Great Scientist to create an Academy. While worked, the Academy will give your city a big science boost.

### SPECIAL ABILITY: LEARN NEW TECHNOLOGY

You can expend your Great Scientist to immediately learn a new technology. This doesn't have to be the tech you're currently working on: you can choose from all techs currently available to you.

### The Great General



The Great General is somewhat different from other Great People. Instead of being generated in cities by specialists, Great Generals are generated by combat. Whenever one of your military units gets XPs, your civilization generates Great General points. When you've got enough points, you earn a Great General. At that point the amount you need for the next Great General rises. (Note: If an experienced unit dies, part of its earned XPs are removed from the Great General pool.) You can also earn a Great

General by acquiring the Warrior Code social policy or by completing the Brandenburg Gate.

### GREAT GENERAL IMPROVEMENT: CITADEL

The Citadel provides a big defensive bonus to any unit occupying it. Further, it damages any enemy unit that ends its turn next to the Citadel. Note that a Citadel functions only when it's in your territory. If it were, say, culture-bombed, it would change hands, being effective only for the other player.

### SPECIAL ABILITY: COMBAT BONUS

A Great General provides a combat bonus to all friendly units within 2 tiles. This combat bonus applies to all forms of combat: melee, ranged, defense, and so forth.

# Moving Great People Great People can move about the board like any other units. They are non-combat units, which means that they cannot stack in a tile with other non-combat units (Workers, Settlers), but they can stack with one military unit. If an enemy unit enters a Great Person's tile, that Great Person is automatically destroyed (the enemy doesn't get it.)



# GOLD

Ah, Gold! Gold is wonderful stuff. You can use it to build an army, to pay for a road network, to purchase buildings and Wonders, to buy the friendship of a city-state and to bribe an enemy civilization.

It may be true that "money can't buy you love," but it can purchase a submarine armed with nuclear missiles, and that's not bad.

# Where to Get Gold

Gold comes from a variety of sources. You'll get most of your gold by working the tiles around your cities, but other sources are available as well.

# **Terrain Types**

These tiles provide gold when your citizens work them:

- Coast Tiles
- Ocean Tiles
- River Tiles
- Natural Wonders
- Oasis

### Resources

All resources (especially gold!) provide gold when worked.

# The Trading Post

Construct a trading post improvement in a tile to increase its gold output.

# **Buildings**

Many buildings – markets, banks – increase a city's output of gold, especially if you assign merchant specialists to them.

## Wonders

Some Wonders provide or increase a city's output of gold. Check out Machu Picchu and the Colossus.

Also, if you're constructing a Wonder and another civ finishes it before you do, you get a gold bonus (the size of the bonus depends upon how much progress you've made on the Wonder).

## **Trade Routes**

If a city is connected by a road and/or harbor to your capital city, that city has a "trade route" with the capital. Each trade route is worth a certain amount of gold each turn, the amount determined by the population of the connected city.



### BLOCKADE

An enemy naval unit within 2 tiles of a port city will "blockade" that city, rendering its harbor trade route inoperative until the enemy unit is driven off or destroyed.

## **Barbarian Encampment**

You'll earn gold each time you disperse a Barbarian Encampment.

### **Ancient Ruins**

An ancient ruin may provide gold when it is explored.

# City-States

A city-state may give you gold when you first meet. It may provide more later if you befriend it. (See "City-States" on page 96 for details.)

# **Pillage Enemy Improvements**

Pillaging enemy improvements will give you a modest amount of gold.

# **Capturing Cities**

You may gain a bunch of gold when you capture a city (city-state or civilization's possession).

# **Diplomacy**

You may gain gold – lump sum or an amount each turn for 20 turns – during negotiations with another civ.

# Perform a "Trade Mission"

A Great Merchant can perform a "trade mission" in a city-state. The Merchant is expended and you get lots of gold. (See "Great People" on page 99.)

# **Expending Gold**

There's lots of stuff to spend gold on.

# **Unit and Building Maintenance**

Units and buildings both have "maintenance costs" that must be paid every turn. See the individual entries on the units and buildings for specific amounts. (Note that these maintenance costs are dependent upon the difficulty level at which you're playing.)

## **Road Maintenance**

You spend gold for each road tile that you construct. If you absorb another civ's roads into your territory, you pay for their maintenance as well.



### **Purchase Tiles**

You can extend your civilization's territory by purchasing individual tiles. Go to a City Screen, and then click on "Buy a Tile." The map will display all tiles available for purchase. Click on the tile to expend the requisite gold and purchase the tile.

## **Purchasing Units, Buildings or Wonders**

You can spend gold to purchase units or buildings in a city. Click on an item (if you can afford it!) and it will be immediately constructed in the city, and the amount deducted from your treasury.

Note that "projects" – the Utopia Project, the Manhattan Project, etc. – cannot be purchased.

## **Upgrading Obsolete Units**

Over time, you'll learn new technologies that will allow you to create better military units than those you previously could. When this occurs, you'll have the option to "upgrade" the older units, turning them into the newer, more powerful models. (For example, once you learn Iron Working, you can upgrade any Warrior units you possess into Swordsmen.) Each upgrade costs some gold – the more powerful the upgrade, the more expensive it will be. A unit must be in your territory to be upgraded. When an upgrade is available for a unit, the "Upgrade" button will appear in the unit's Action list.

# **Buying Friendship with City-States**

If you want to improve your relationship with a city-state, one way to do so is to give it some gold. Increasing amounts of gold may be given for larger boosts to friendship.

## **Diplomacy**

You can exchange gold with other civilizations for any number of reasons – trading it for resources, for example, to get the other civ to make peace with you, or to bribe the civ to attack a third. Gold is extremely useful in negotiations.

There are two different ways to exchange gold: flat fee and per turn.

### FLAT FEE

A "Flat Fee" exchange is just that. You give or receive a one-time lump sum of gold, and then you're done.

### PER TURN

You can also negotiate an exchange that occurs over a number of turns (the number of which varies depending on your Game Pace). For example, you might agree to pay the other civ 5 gold per turn for 30 turns. These agreements are rendered null and void if the two civilizations go to war.



# **Getting Plundered**

If the fiendish barbarians successfully attack one of your cities, they "plunder" some of your gold and you retain the city.

# Losing a City

If a civilization or city-state captures one of your cities, they take some of your gold (as well as the city).

# **Running Out of Gold**

If your treasury is at zero and you're running a negative budget, the difference is deducted from your Science. Beware: this can seriously slow down your acquisition of new technology, which can leave you extremely vulnerable to attack by more advanced neighbors. Get your budget in order as quickly as possible!

# **HAPPINESS**

Happiness is a measure of your citizens' contentment. As a rule, the larger your total population, the unhappier everybody gets. An unhappy population doesn't grow very rapidly, and a very unhappy population will affect the fighting quality of your armies as well.

Your civ's happiness is displayed on the Status Bar of the Main Screen (in the upper left-hand corner of the game). Watch it carefully. If it reaches zero, your population is getting restless. If it starts to dip into negative numbers, you're in trouble. (Incidentally, you can get an excellent snapshot of your population's happiness by hovering your cursor over this number.)

# **Starting Happiness**

The amount of happiness that your civilization begins with is determined by the game's difficulty setting. The moment you construct your first city, that number will begin to decline.

# **What Causes Unhappiness**

The following cause unhappiness:

- Raw Population: As your civ grows, the people get increasingly unhappy and demand more stuff to keep them amused.
- **Number of Cities:** As the number of cities in your civ grows, so does your unhappiness. In other words, a civ with 2 cities each of population 1 is unhappier than a civ with 1 city of population 2, even though they both contain the same total population.
- Annexed Cities: If you capture and annex foreign cities, your population doesn't much like it.

# **What Causes Happiness**

The following increase your population's happiness:

- **Natural Wonders:** Each natural wonder you discover permanently increases your civilization's happiness.
- Luxury Resources: Improve resources within your territory or trade for them with other civs. Each kind of resource improves your population's happiness (but you don't get extra happiness for having multiple copies of a single luxury).
- **Buildings:** Certain buildings increase your population's happiness. These include the Coliseum, the Circus, the Theatre, and others. Each building constructed anywhere in your civ increases your overall happiness (so two Coliseums produce twice as much happiness as one, unlike Luxuries).
- Wonders: Certain wonders like Notre Dame and the Hanging Gardens can give you a big boost in happiness.
- **Social Policies:** Policies from the Piety branch provide a lot of happiness, as do a few policies in other branches.
- **Technologies:** Technologies in themselves don't provide happiness, but they do unlock the buildings, wonders, resources and social policies which do.



# **Levels of Unhappiness**

There are two levels of unhappiness. Neither is very pleasant.

## Unhappy



When your happiness is negative and your happiness icon is looking sad, your population is "unhappy." An unhappy population's growth rate is significantly slowed, but there are no other ill effects.

# **Very Unhappy**



When your happiness is negative and your happiness icon is looking angry, your population is "very unhappy." If your population is very unhappy, your cities stop growing altogether, you cannot build any Settlers, and your military units get a nasty combat penalty.

Remember that unhappiness is not permanent. You can always increase your citizens' happiness — no matter how pissed off they are at you — through the methods outlined above.



During certain periods, some civilizations seem to burst with energy and vitality. The civilization's people become increasingly productive, technology advances come fast and furious, and its culture is the envy of the world. Italy during the Renaissance is one such example, and the United States during the second half of the 20<sup>th</sup> century is another. In Civilization V, such periods are called "Golden Ages."

### **Entering a Golden Age**



There are several different ways to enter a Golden Age, two of these are:

**Expend a Great Person:** You can expend a great person to trigger an immediate Golden Age.

**Happiness Bucket:** If your civilization is generating more happiness than is required to keep your population content, the excess happiness is collected in a "happiness bucket." When that bucket acquires enough happiness, a Golden Age is triggered. (If your civilization is unhappy, happiness is drained from the bucket.)

### Effects of a Golden Age

In a golden age, any tile that produces gold produces an additional gold, and any tile which produces production produces an additional production. When the Golden Age ends, gold and production levels return to normal.

### **Duration of the Golden Age**

A happiness bucket-based Golden Age is 10 turns. A Great Person-based Golden Age is shorter. Great Person-based Golden Ages decrease in length each time you expend a Great Person to create one, however, they never fall below 3 turns each.



### WONDERS

Wonders are the spectacular buildings, inventions, and concepts that have stood the test of time and changed the world forever. Wonders require much time, energy and effort to complete, but once constructed they provide your civilization with many benefits.

There are two types of wonders: World Wonders and National Wonders.

### **World Wonders**

World Wonders are unique; only one of each can be constructed during a game. (For example, the Great Lighthouse is a World Wonder; whichever civilization completes it first is the only one who can build it.) Great Wonders tend to be extremely powerful and extremely expensive, as well.

### **Losing the Construction Race**

If another civilization completes a Great Wonder while you are in the process of building it, your construction ceases and a certain amount of your production efforts are converted into gold. (This doesn't occur with National Wonders, since each civ can have its own version of a National Wonder.)

### **National Wonders**

National Wonders may be built once by each civilization in the game. That is, each civilization can have its own National Epic Wonder (though no civilization can have two of them).

### **Effects of Wonders**

A Wonder can have a huge variety of effects. One might greatly increase a city's productivity, while another might increase your civilization's happiness. A third might increase your civilization's output of Great People, and a fourth might increase the defensive strength of all of your cities.

Check the Civilopedia's Wonder entries for more details.

### **Capturing Wonders**

If you capture a city, you will capture all World Wonders constructed in it. All National Wonders are destroyed, however.

### **Projects**

Projects are a special kind of construction akin to Wonders in that they perform special functions unlike other buildings. Some Projects may be constructed only once per civilization, like the Apollo Program, or multiple times over the course of the game, such as the SS Booster. Unlike Wonders, which give your civ immediate bonuses upon completion, Projects help unlock other features or units in the game (like the ability to build the Atomic Bomb) or are

unlock other features or units in the game (like the ability to build the Atomic Bomb) or are necessary components to build for Victory. See "Culture" on page 80 and "Science Victory" on page 116 for more information.

Also unlike any other production item in a city, Projects may not be purchased or hurried.



### DIPLOMACY

Diplomacy is important in *Civilization V*. The world is huge and filled with other civilizations whose leaders are just as cunning and determined as you are. Some are honest; others are liars. Some are warlike and others prefer peace. But all want to win.

You can accomplish a lot through diplomacy. You can gain allies and isolate your enemies. You can create defensive and offensive pacts. You can increase your technology through cooperative research ventures. You can end wars that are going badly for you. You can bluff the credulous and bully the timid.

It's a big, tough world out there, and you won't last long if you automatically attack every-body you meet. Sometimes it really is better to talk than to fight – at least until their back is turned and you're ready to launch the big sneak attack.

### **Who Can Conduct Diplomacy**

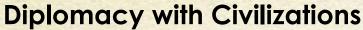
You can speak to a city-state or another civilization's leader at any time after you've established diplomatic relations with them. This happens automatically when one of your cities or units encounters one of their cities or units. (In fact, the desire to establish diplomatic relations is one of the driving forces behind world exploration.) After you've established diplomatic relations with another political entity you can speak with them at any time. Though they may not have much to say if they hate your guts.

Note that another civ or city-state may attempt to open negotiations with you, as well, after you've established diplomatic relations.

### **Initiating Diplomacy**

To initiate diplomacy, click on the Diplomacy Panel button. The Diplomacy Panel will appear, displaying all known civilizations and city-states in the game. Click on an entry to speak with that leader. Alternatively, you can click on a civ's or city-state's city banner to open communications with them.

What you can accomplish depends upon whether you're speaking with a civilization or a city-state.



When you engage in diplomacy with civilizations, you have these options:

#### **Declare War**

Click on this button to declare war against the civilization.

#### **Negotiate Peace**

If you're at war with the civ, you can discuss peace.

#### Trade

You can negotiate a trade deal with the civilization. Clicking on this button will bring up the Trade Screen.



#### **Demand**

You can demand stuff from the other civ. It may comply if you're a lot bigger than it or if it otherwise feels it's appropriate. Or it may declare war on you. You never know...

#### **Discuss**

This button allows you to open up dialog on a variety of topics. Depending upon circumstances you may do any of the following. The leader's response will depend upon his or her relations with you and their own self-interest.

- Ask the leader to make a joint Declaration of Friendship.
- Publicly Denounce the leader.
- Ask the leader to go to war against another civ.
- Request that the leader not build any more new cities near you.

#### **Exit**

Press this to exit diplomacy with the leader.

### The Trade Screen



The Trade Screen allows you to trade items, to make research agreements and to enter into other kinds of treaties. Many options require knowledge of certain technologies before you use them. If you cannot trade something, it is greyed out. Hover your cursor over a line to learn more about it.

The Trade Screen is divided into two sides. Your civ's stuff is on the right side, and the other civ's is on the left.

Click on items on your side to offer them to your trading partner; click on items on his or her side to indicate what you want in return. You might for example offer your opposite number "Open Borders" (permission for his units to enter your territory) in return for "Open Borders" (permission for your units to enter his territory).

However, trades do not need to be equal: you can, for example, ask for "Open Borders" in return for gold, or nothing. Once you've set up the trade you want, click on the "Propose" button to present it to the other civ. If the other civ accepts the offer it goes into effect immediately. If the other civ rejects it, you can click on "What would make this deal work?" to ask what the leader wants. (Note: there are times when the AI will never give up a certain item, no matter how good your offer.)

Sometimes the other leader will make you an offer. You can accept the offer or make a counter-offer or decline it altogether. Click on the "Back" button to leave this screen.

Trade agreement lengths vary by game speed, with longer Game Paces yielding longer agreement lengths. Agreement lengths below are given for a Standard Pace game.

#### **Open Borders Agreement**

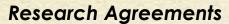
Once you have discovered Writing, you can enter into an Open Borders agreement with another civ. (City-States can't make Open Borders agreements.) While an Open Borders agreement is in effect, the other civ's units can enter your territory without automatically triggering war. If the agreement is mutual, either civ's units can enter the other's territory freely; however it doesn't have to be mutual: one civ can grant another Open Borders without automatically receiving it in return.

An Open Borders agreement lasts for 20 turns. When 20 turns have passed, the agreement must be renegotiated or it lapses.

#### **Defensive Pact**

Once you have acquired the Chivalry tech, you may engage in a Defensive Pact. Defensive Pacts are always mutual. If a signatory to a Defensive Pact is attacked, the other partner is automatically at war with the attacker.

A Defensive pact lasts for 20 turns. When that time has elapsed, the pact lapses unless it is renegotiated. The defensive pact is nullified if one of the participants declares war on anybody.



Once you have acquired the Philosophy tech, you may engage in a Research Agreement with another civ. A research agreement costs each side gold (if you don't have the required gold, you can't be part of an agreement). Once the agreement expires both Civs will receive a free tech chosen at random.

The Research Agreement lasts 20 turns. You must make a new Agreement (and pay additional gold) if you want to extend it for another 20.

#### **Trading Cities**

You can trade cities with other civilizations. Generally, civilizations will not trade cities unless in dire circumstances or in exchange for huge payouts. You cannot trade your capital city. City trades are permanent.

#### Other Players

You can ask your trading partner to interact with other civs that you both know. You can ask him or her to declare war on or make peace with another player.

#### Resources

You can trade Strategic and Luxury resources with another civ. The other civ gets all of the benefits of the resource for the duration of the trade (20 turns).

### **Negotiating with City-States**

City-States are much less complicated than civilizations. You have fewer options when negotiating with them. Generally you can offer them gold, declare war or offer peace. Sometimes they will ask favors of you. See "City-States" on page 96 for more details.

### **Declaring War**

You can declare war on a city-state or another civilization through the Diplomacy Panel or by simply attacking one of their units. You can declare war on a civ by entering their territory without an Open Borders agreement, as well.

They can declare war on you in the same fashion.

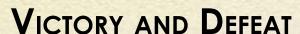
### **Negotiating Peace**

While at war, you can offer to negotiate peace through the Diplomacy Panel. Your opponent may refuse to negotiate altogether, in which case the war will continue.

If it's willing to negotiate at all, a city-state will always accept an offer of peace without preconditions.

If your opponent is a civilization who is willing to discuss peace, you may negotiate the price for peace on the Trade Table. Depending upon circumstances one side or the other may give the opponent gold, treaties, cities, and/or resources in exchange for peace.

Note that your opponent can also offer to negotiate peace. It's usually a good idea to at least see what they're offering before deciding upon your response



There are multiple paths to victory in *Civilization V*. You can win through scientific dominance, becoming the first civ to create and launch a space ship to Alpha Centauri. You can overwhelm the other civilizations through cultural superiority or political cunning. Or you can employ the ever-popular "crush all of your enemies beneath the wheels of your chariot" tactic and win a mighty domination victory. Whichever civilization achieves a set of victory conditions first wins.

It's important to keep an eye on your opponents' progress toward victory as you advance your own civilization. There's nothing so annoying as to be on the verge of capturing your last surviving enemy's Capital City, only to watch helplessly as he or she completes her spaceship and wins an upset scientific victory.



### City-States and Victory

City-States cannot win a game of Civilization V. Only major civilizations can do so.

### How to Lose

There are three paths to failure in Civilization V.

#### Losing Your Last City

If you lose your last city – to another civilization, barbarians or to an angry city-state — then you lose immediately. This is very embarrassing, so don't let it happen to you.

#### **Another Civilization Wins**

If another civilization achieves one of the four victories explained below, game over: you lose. It doesn't matter if you were about to achieve your own victory, whoever completes a victory condition first wins, and everybody else loses.



#### 2050 Arrives

If the year 2050 arrives and nobody has won one of the victories below, the game ends automatically and the civilization with the highest score wins (see below).

### **How to Win**

There are five paths to victory available to you in Civilization V:

#### **Domination**

If you are the last player in possession of your own original capital you win. So if you capture all other civs' capitals and hang onto your own, you've achieved victory. However, this can be tricky. Suppose you're in a five-player game and you capture three of your opponents' original capitals, but the fifth player sneaks in and captures your capital while you're not paying attention – then he would win immediately. In other words, it doesn't matter who captures what: it's the last player holding onto his original capital who gets the victory.

If you've lost your original capital, but still possess other cities, you can still win another type of victory: culture, scientific, or diplomatic. However, you cannot win a Domination victory until and unless you recapture your own original capital.

#### DESTROYING AN ORIGINAL CAPITAL

Simply: can't be done. A capital cannot be destroyed by any means. It can be captured, but not destroyed. Dropping a nuke on the city will at worst reduce its population to 1, but the city will not be destroyed. Accept it and move on. (Remember that you can drive another civ out of the game by destroying or capturing all of its cities, so you can still wipe your foes off the map even if you can't erase their capital from the face of the earth...)

#### CURRENT CAPITAL VS. ORIGINAL CAPITAL

If your original capital has been captured, another of your cities will automatically be assigned as a replacement capital. This city functions in all ways like the original, except that it can be destroyed, and it does not count towards a Domination victory.

If you ever retake your original capital, it will resume its leadership position in your civilization.

#### Science Victory

You achieve a science victory by learning the necessary technologies to create all of the pieces of the space ship, then building the parts and moving them to your current capital (or building them there in the first place).

#### SPACE SHIP PARTS

Space ship parts are constructed and move around the map like any other unit. Each requires an advanced technology to construct. They are non-combat units and are automatically destroyed if captured. Once a part has been constructed, order it to move to your current capital. When it arrives, you may press the "Add to Spacehip" button to add this part to your space ship.

When all space ship parts have been added, the ship will launch into space and you will have won a science victory!



Incidentally, space ship parts cannot be rushed or purchased. They must be constructed in a city.

#### Cultural

To win a cultural victory, you must acquire five complete "branches" of social policies – that is, you must own all policies within six different branches. Once you've done that, the "Utopia Project" is unlocked. Construct that project and you win a cultural victory. You cannot rush or purchase this project; it must be constructed.

#### **Diplomatic Victory**

When a player learns the "Globalization" technology, he or she can construct the United Nations in one of their cities. Once that is constructed, a vote will be taken every 10 turns for the position of World Leader. If a leader gets enough votes to win the position, he or she immediately wins a diplomatic victory.

The amount of votes needed to win a diplomatic victory depends upon the number of civilizations in play at the start of the game.

#### WHO VOTES?

All civilizations and city-states have a vote. The civilization which possesses the United Nations has two votes.

Civilizations always vote for themselves, *unless* liberated, in which case they vote for their liberator (see below).

City-States vote for the civilization with the best relations, unless they've been liberated, in which case they vote for their liberator.

#### LIBERATION

If you take a city-state that has been captured by another civilization, you have the choice to annex the city-state, make it a puppet, or liberate it. If you choose to liberate a city-state, then it will always vote for you in UN elections, no matter what its relations are with you at the time of the vote. If the same city-state has been liberated twice, it will vote for the civ which liberated it most recently.

If a civilization has been removed from the game and you capture one of those civ's cities, you have the option of annexing it, making it your puppet, or liberating it. If you do so, the civilization returns to play. The liberated civ will always vote for you in UN elections. In case of multiple liberators, the civ will vote for whoever liberated them most recently.

### The End of Time

If no one has achieved victory, the game ends automatically at the end of 2050. The Scores of all surviving civs will be tallied and a victor announced. You may continue playing the game after this point, but victory will no longer be a factor.



### **Your Score**

In many Civilization V games, one of the players will win the game by achieving one of the four possible victories: Domination, Science, Diplomacy, or Culture. However, if no one achieves one of these victories by the year 2050, the winner is determined by the surviving civilization's "score."

And if someone does win outright before 2050, their score will determine their place on the "Hall of Fame" screen. Here's how scores are calculated.

### Elimination

If you are eliminated from the game, your score is zero. (Sorry.)

### **Time to Victory**

If you achieve victory before 2050, you receive a "score multiplier." The earlier the victory, the better.

### Score

You earn points for:

- The number of tiles in your borders (this is the least important factor in victory)
- The number of cities in your empire
- Your population
- The number of techs you possess
- The number of "future techs" you possess
- The number of Wonders you have constructed (this is the most important factor in determining victory)

#### Map Size and Game Difficulty

The size of the map that you play on will determine the Score each civ receives for tiles, number of cities, and population. The game difficulty you choose will determine the overall value of all points in the game: the higher the difficulty, the more everything's worth. (In other words, winning a crushing victory on the easiest level will probably be worth fewer points than eking out a marginal victory on the toughest level.)

### **Your Current Score**



You can see everybody's current score on the Diplomacy Panel. If you hover the cursor over your score, you'll see where your points are coming from. (That doesn't work on other civs' scores, however.)

Note that the Score is not permanent: they can come and go across the course of a game. If you construct a Wonder, you then get the points for it. But if somebody else captures the city it's in, they get those points.



### AIR COMBAT

By the Second World War, air power has come to dominate warfare around the world. Air power acts as a "force multiplier" in combat, and the nation that can establish air supremacy over the battlefield has a huge advantage over the enemy.

Perhaps most importantly, strategic bombing has become a central force in modern warfare, and with the advent of nuclear ballistic missiles, it has the ability to literally wipe an entire civilization off the face of the planet.

Air power is critical to victory in Civilization V.



### **Air Units**

There are five main types of air units in *Civilization V*: helicopter gunships, missiles, fighters, bombers, and anti-air ground units. Helicopter gunships are the closest to standard ground combat units and will be discussed separately.

Of the air units, missiles are essentially "one-shot" weapons: you fire 'em, they hit their target and they're gone. Fighters are primarily used to defend against enemy air power and to clear the target of interceptors to allow bombers to hit their targets. Bombers do damage to targets on the ground, if not intercepted. Anti-air units defend against fighters and bombers.

### **Helicopter Gunships**

As stated above, helicopter gunships are quite similar to standard land units. They are extremely effective at killing tanks, but remain vulnerable to anti-aircraft fire.

#### **Gunship Movement**

Gunships can move over all terrain types including mountains and ice, at a cost of 1 MP each. They can also move over coastal waters at the same price. They cannot enter deep water unless they embark.



#### **Anti-Tank Bonus**

Gunships can do serious damage to tank units (which is why most armor is accompanied by hefty anti-air assets on the modern battlefield).

### Air Bases

With the exception of gunships, air units do not move around the map like ground and naval units. They must be "based" on a friendly city. Fighters and some bombers can be based upon aircraft carriers as well. Missile units may be based on cities, nuclear submarines, and missile cruisers. Air units cannot embark (except gunships). If on extended sea voyages, they must be carried by the appropriate vessel – carrier, cruiser, or nuclear sub.

Anti-air units and helicopters don't need to be "based". They move around the map like other units, and can embark.

#### **Base Locations**

#### FIGHTERS AND JET FIGHTERS

Fighters and jet fighters can be based on cities and aircraft carriers.

#### **BOMBERS**

Bombers can be based on cities and aircraft carriers.

#### STEALTH BOMBERS

Stealth bombers can be based on cities only.

#### ATOMIC BOMBERS

Atomic bombers can be based on cities and on aircraft carriers.

#### ALL MISSILES

Missiles can be based on cities, on missile cruisers and on nuclear submarines.

### **Naval Unit Capacity**

#### CARRIERS

A carrier can carry up to three air units (fighters, bombers and atomic bombers).

#### MISSILE CRUISER

A missile cruiser can carry up to three missiles of any type.

#### NUCLEAR SUBMARINE

A nuclear submarine can carry up to two missiles of any type.

#### Air Unit Stacking

You can have any number of missiles, fighters and bombers in a single tile. There is no "stacking" limitation for these units. They can be stacked with both combat and non-combat units. Helicopters and anti-air units must follow the standard stacking rules.



In place of a movement stat, air units have "range." This is the distance from a base that they can perform "missions." It's also the distance that they can "rebase" – move from one base to another. For example, a fighter unit has a range of 8. It can perform its missions against any tile within 8 spaces of its current base, and it can move to another base (city or carrier) that is within 8 spaces as well.

An air unit that rebases cannot perform another mission in the same turn.

#### Recon

Fighters, jet fighters and stealth bombers have a special "recon" ability. At the start of their turn, everything within 6 tiles of their base is visible. This isn't a mission and it doesn't use up their turn: it happens automatically.

### **Missions**

During an air unit's turn, it can perform one of a number of "missions." These include making air strikes (ranged attacks against ground targets), rebasing, interception (defending against enemy air attack) and "sweeping" (disabling enemy interception). Some air units can perform only a subset of these missions.

#### Rebase

The air unit moves to a new base within its range.

#### Air Strike

The air unit attacks a ground target within its air range.

#### Air Sweep

The air unit "sweeps" a target tile, disabling "intercepting" units.

### Interception

The air unit prepares to defend against enemy air attacks. (Note that ground-based anti-air units automatically intercept when attacked by air; they don't need special orders.)

### Air Strikes

When a unit is ordered to make an "air strike" against an enemy city or unit, if it is not intercepted, it performs a ranged attack against the target. Unlike most ranged attacks, however, the attacking unit can take damage from the attack. (In another words, if you bomb a tank, it might hurt you.) If the air striking unit survives, it returns to its base.

Missiles and bombers have the most powerful air strikes.

### Interception

Fighters and jet fighters can be set to "intercept" enemy air attacks. (AA gun and mobile SAM automatically intercept; they don't need to be given a special mission.) If an air unit tries an air strike against a target within the range of an intercepting unit, the interceptor will fire on the attacker and do damage to it. Unless the attacker is killed by the interceptor, the air strike proceeds.

Only one unit can intercept an air strike, and once it does so, it cannot intercept any more that turn (though certain promotions can increase this). So if you're expecting multiple air attacks on a target, you might want to pile multiple fighters and AA units on and around that target.

#### Air Sweeps

When attacking a target that is heavily protected by fighters and AA units, a fighter can perform the "air sweep" mission against that target to "use up" the enemy's interception capability. If the fighter is intercepted by an enemy fighter, the two units dogfight, and one or the other might be damaged or destroyed. If the fighter is intercepted by a ground unit, it will take damage from the ground unit (but less so than a unit on an air strike mission would).

### Missiles

Missiles are one-shot weapons. They perform a single air strike mission against a target, and then, win or lose, they are destroyed. Unlike normal aircraft, missiles cannot be intercepted.

### **Air Unit List**

B17



Strength: Ranged: 60

Range: 10 Cost: 550

Technology Required: Radar Resources Required: Oil

**Special Abilities:** An American Unique Unit, it receives 50% less damage from interceptions and an extra +25% combat bonus against Cities.

### **Bomber**



Strength: Ranged: 60

Range: 10 Cost: 550

Technology Required: Radar

Resources Required: Oil Special Abilities: None





Strength: Ranged: 50

Range: 8 Cost: 450

Technology Required: Flight Resources Required: Oil

Special Abilities: Can Intercept other units, perform Air Sweeps and Re-

cons, and receives a combat bonus versus Helicopters.

#### Helicopter Gunship



Strength: 50 Range: 6

**Cost:** 500

**Technology Required:** Rocketry **Resources Required:** Aluminum

Special Abilities: Ignores terrain movement costs and receives a bonus

verses Tanks.

#### **Jet Fighter**



Strength: Ranged: 70

Range: 10 Cost: 600

Technology Required: Lasers
Resources Required: Aluminum

Special Abilities: Can Intercept other units, perform Air Sweeps and Re-

cons, and receives a combat bonus versus Helicopters.

#### Stealth Bomber



Strength: Ranged: 80

Range: 20 Cost: 800

Technology Required: Stealth Resources Required: Aluminum

Special Abilities: Can perform Air Recons and receives a 100% bonus to

Evasion.



Zero



Strength: 50 Range: 8 Cost: 450

Technology Required: Flight Resources Required: Oil

**Special Abilities:** A Japanese Unique Unit, it can Intercept other units, perform Air Sweeps and Recons, and receives a combat bonus versus Helicopters and Fighters.

### NUKES

Nuclear Weapons are extremely powerful weapons. They blow a lot of stuff up and poison the land and sea. They should only be used as a last resort — or if you're absolutely sure that you're the only one who has them – because once they start flying, the whole world can quickly become an extremely unpleasant place to be.

As someone once said, "One nuclear bomb can ruin your whole day."

### **Atomic Bombs**

The first nuclear weapon available in the game, the atomic bomb is a very powerful unit that can quickly alter the world's balance of power. Atomic bombs are similar to missiles in that they can only attack once. Unlike missiles, they may be stationed on aircraft carriers. The damage radius for the atomic bomb is 2 tiles in every direction. Units caught in the blast will be damaged, and cities will lose population if hit.

An "A-bomb" cannot totally destroy a city. No matter how many times a city is hit by atomic bombs, it will not be destroyed.

### **Nuclear Missiles**

While the atomic bomb does a fair amount of damage, nuclear missiles are truly devastating. All units caught in the blast radius are destroyed, and the damage done to cities is even greater. Unlike atomic bombs, nuclear missiles are even capable of wiping cities off the map completely (note that a player's original capital may not be destroyed in this manner).

As their name implies, nuclear missiles are missile units, which means they may be stationed on missile cruisers or nuclear submarines, but not aircraft carriers.

## Bombs and ICBM Unit List

#### **Atomic Bomb**



Strength: N/A Range: 10 Cost: 850

Technology Required: Nuclear Fission

**Resources Required:** Uranium

**Special Abilities:** This special unit does massive damage to cities and all surrounding units caught within its 2-tile blast radius. Receives a +50% bonus to Evasion.

#### **Guided Missile**



Strength: Ranged: 70

Range: 8 Cost: 200

Technology Required: Satellites Resources Required: None

Special Abilities: Cannot be intercepted.

#### **Nuclear Missile**



Strength: N/A Range: 12 Cost: 1200

Technology Required: Advanced Ballistics

Resources Required: Uranium

**Special Abilities:** This special unit does massive damage to cities and all surrounding units caught within its blast radius. Receives a +50% bonus to

Evasion.

## **UNIT LIST**

Following is a list of the units in the game, separated by military category. All costs are based on a Standard Game Pace.

### **Archery Unit List**

#### Archer



Strength: 4, Ranged: 6

Range: 2 Movement: 2 Cost: 75

Technology Required: Archery Resources Required: None

**Special Abilities:** Performs Ranged attacks.

#### Chu-Ko-Nu



Strength: 6, Ranged: 9

Range: 2 Movement: 2 Cost: 140

Technology Required: Machinery

Resources Required: None

**Special Abilities:** A Chinese Unique Unit, it may attack twice in one turn.

Performs Ranged attacks.

#### Crossbowman



Strength: 6, Ranged: 12

Range: 2 Movement: 2 Cost: 140

Technology Required: Machinery

Resources Required: None

**Special Abilities:** Performs Ranged attacks.



#### Longbowman



Strength: 6, Ranged: 12

Range: 3

Movement: 2

Cost: 140

Technology Required: Machinery

Resources Required: None

Special Abilities: An English Unique Unit, it receives a +1 bonus to its

Range. Performs Ranged attacks.

### **Armored Unit List**

#### **Modern Armor**



Strength: 80 Movement: 4 Cost: 700

Technology Required: Lasers
Resources Required: Aluminum

Special Abilities: Can move after performing an attack.

#### **Giant Death Robot**



Strength: 150 Movement: 3 Cost: 1000

Technology Required: Nuclear Fusion

Resources Required: Uranium

**Special Abilities:** Can move after performing an attack.

#### **Panzer**



Strength: 60 Movement: 5 Cost: 450

Technology Required: Combustion

Resources Required: Oil

Special Abilities: A German Unique Unit, it can move after performing an

attack.



#### Tank



Strength: 50 Movement: 4

**Cost:** 450

Technology Required: Combustion

Resources Required: Oil

**Special Abilities:** Can move after performing an attack.

### Civilian Unit List

#### Settler



Movement: 2 Cost: 106

Technology Required: None Resources Required: None

**Special Abilities:** This special unit can found a new city.

#### **Work Boat**



Movement: 4

Cost: 50

Technology Required: Sailing Resources Required: None

Special Abilities: This special unit can construct water tile improvements.

#### Worker



Movement: 2

Cost: 70

Technology Required: None Resources Required: None

Special Abilities: This special unit can construct and repair land-based tile

improvements.

### **Gunpowder Unit List**

#### Anti-Aircraft Gun



Strength: 32 Movement: 2 Range: 2 Cost: 350

**Technology Required:** Radio **Resources Required:** None

Special Abilities: Can perform aircraft Interceptions and receives a +100%

combat bonus to aircraft and Helicopters.

#### Anti-Tank Gun



Strength: 32 Movement: 2 Cost: 350

**Technology Required:** Replaceable Parts

Resources Required: None

Special Abilities: Receives a bonus against Tanks.

### Foreign Legion



Strength: 36 Movement: 2 Cost: 350

Technology Required: Replaceable Parts

Resources Required: None

Special Abilities: A French Unique Unit, it receives a +20% combat bonus

when fighting outside friendly territory.

#### Infantry



Strength: 36 Movement: 2 Cost: 350

Technology Required: Replaceable Parts

Resources Required: None Special Abilities: None





Strength: 16 Movement: 2 Cost: 135

Technology Required: Gunpowder

Resources Required: None

**Special Abilities:** An Ottoman Unique Unit, it receives a +25% combat bonus and can heal all damage if it destroys another unit in an attack.

#### **Mechanized Infantry**



Strength: 50 Movement: 4 Cost: 550

**Technology Required:** Electronics

Resources Required: None Special Abilities: None

#### Minuteman



Strength: 16 Movement: 2 Cost: 135

Technology Required: Gunpowder

Resources Required: None

Special Abilities: An American Unique Unit, all terrains it crosses only cost 1

Movement point.

#### **Mobile SAM**



Strength: 40 Range: 2 Movement: 4

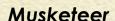
Movement: 4 Cost: 500

Technology Required: Computers

Resources Required: None

**Special Abilities:** Can perform air Interceptions, and receives a +100%

combat bonus versus aircraft and Helicopters.





Strength: 20 Movement: 2 Cost: 135

Technology Required: Gunpowder

Resources Required: None

Special Abilities: A French Unique Unit.

#### Musketman



Strength: 16 Movement: 2 Cost: 135

Technology Required: Gunpowder

Resources Required: None Special Abilities: None

#### **Paratrooper**



Strength: 40 Movement: 2 Cost: 450

Technology Required: Radar Resources Required: None

Special Abilities: This special unit may "paradrop" up to five tiles away

from friendly territory.

#### Rifleman



Strength: 25 Movement: 2 Cost: 220

Technology Required: Rifling Resources Required: None Special Abilities: None

### **Melee Unit List**

#### **Brute**



Strength: 6 Movement: 2

Cost: 20

Technology Required: None Resources Required: None

Special Abilities: The earliest Barbarian Unit, the Brute may be converted

to the player's side when playing as Bismarck.

#### Hoplite



Strength: 9 Movement: 2 Cost: 70

Technology Required: Bronze Working

Resources Required: None

Special Abilities: A Greek Unique Unit, it receives a +100% bonus against

mounted units.

#### **Immortal**



Strength: 8 Movement: 2

Cost: 60

Technology Required: Bronze Working

Resources Required: None

Special Abilities: A Persian Unique Unit, it receives a +100% bonus against

mounted units and heals at double the normal rate.

#### Jaguar

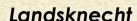


Strength: 6 Movement: 2 Cost: 40

Technology Required: None Resources Required: None

**Special Abilities:** An Aztec Unique Unit, it receives a +50% combat bonus when fighting in Jungle tiles and heals 2 damage if it destroys another

unit.





Strength: 10 Movement: 2

Cost: 50

Technology Required: Civil Service

Resources Required: None

Special Abilities: A German Unique Unit, it receives a +100% bonus

against mounted units.

#### Legion



Strength: 13 Movement: 2

Cost: 90

Technology Required: Iron Working

Resources Required: Iron

Special Abilities: A Roman Unique Unit, it is capable of constructing roads

and forts.

### Longswordsman



Strength: 18 Movement: 2 Cost: 165

Technology Required: Steel Resources Required: Iron Special Abilities: None

#### **Mohawk Warrior**



Strength: 11 Movement: 2

Cost: 80

Technology Required: Iron Working

Resources Required: Iron

Special Abilities: An Iroquois Unique Unit, it receives a bonus when fight-

ing in forest or jungle tiles.



#### **Pikeman**



Strength: 10 Movement: 2 Cost: 100

Technology Required: Civil Service

Resources Required: None

Special Abilities: Receives a +100% bonus against mounted units.

#### Samurai



Strength: 18
Movement: 2
Cost: 165

Technology Required: Steel Resources Required: Iron

**Special Abilities:** A Japanese Unique Unit, it receives a +20% combat bonus when fighting in open terrain and is very likely to spawn Great Generals.

als while fighting.

#### Spearman



Strength: 7 Movement: 2

Cost: 60

Technology Required: Bronze Working

Resources Required: None

**Special Abilities:** Receives a +100% combat bonus against mounted units.

#### Swordsman



Strength: 11 Movement: 2 Cost: 90

Technology Required: Iron Working

Resources Required: Iron
Special Abilities: None





Strength: 6 Movement: 2

Cost: 40

Technology Required: None Resources Required: None

Special Abilities: The first military unit available in the game.

### **Mounted Unit List**

### **Camel Archer**



Strength: 10, Ranged: 15

Range: 2

Movement: 3 Cost: 165

Technology Required: Chivalry Resources Required: Horses

Special Abilities: An Arabian Unique Unit, it can move after attacking and

performs ranged attacks.

#### Cavalry



Strength: 25 Movement: 3 Cost: 285

Technology Required: Military Science

**Resources Required:** Horses

**Special Abilities:** Can move after attacking.

### **Chariot Archer**



Strength: 3, Ranged: 6

Range: 2 Movement: 4

Cost: 70

Technology Required: The Wheel

**Resources Required:** Horses

Special Abilities: Performs ranged attacks.





Strength: 12 Movement: 5

Cost: 90

Technology Required: Horseback Riding

**Resources Required:** Horses

Special Abilities: A Greek Unique Unit, it can move after attacking and

combat is likely to spawn Great Generals.

#### Cossack



Strength: 25 Movement: 3 Cost: 285

Technology Required: Military Science

**Resources Required:** Horses

**Special Abilities:** A Russian Unique Unit, it receives a combat bonus when

fighting damaged units and can move after attacking.

#### Horseman



Strength: 10 Movement: 4

Cost: 90

Technology Required: Horseback Riding

**Resources Required:** Horses

Special Abilities: Can move after attacking.

### Knight



Strength: 18 Movement: 3 Cost: 165

Technology Required: Chivalry Resources Required: Horses

Special Abilities: Can move after attacking.





Strength: 22 Movement: 4

**Cost**: 240

Technology Required: Metallurgy

**Resources Required:** Horses

Special Abilities: Can move after attacking.

Mandekalu Cavalry



Strength: 18 Movement: 3 Cost: 165

Technology Required: Chivalry Resources Required: Horses

**Special Abilities:** A Songhai Unique Unit, it receives a +10% combat bonus

against cities and can move after attacking.

Naresuan's Elephant



Strength: 22 Movement: 2 Cost: 165

Technology Required: Chivalry Resources Required: None

Special Abilities: A Siamese Unique Unit, it receives a +50% combat bonus

against mounted units and can move after attacking.

Sipahi



Strength: 22 Movement: 5 Cost: 240

Technology Required: Metallurgy Resources Required: Horses

**Special Abilities:** An Ottoman Unique Unit, it can pillage tiles without expending Movement Points, receives a +1 bonus to its visibility, and can

move after attacking.

#### War Chariot



Strength: 3, Ranged: 6

Range: 2

Movement: 5

Cost: 70

Technology Required: The Wheel

Resources Required: None

Special Abilities: An Egyptian Unique Unit, it performs ranged attacks.

#### **War Elephant**



Strength: 6, Ranged: 8

Range: 2

Movement: 3

Cost: 85

Technology Required: The Wheel

Resources Required: None

**Special Abilities:** An Indian Unique Unit, it performs ranged attacks.

### **Naval Unit List**

#### **Battleship**



Strength: 60, Ranged: 32

Range: 3
Movement: 4

Cost: 550

Technology Required: Telegraph

Resources Required: Oil

Special Abilities: Performs ranged attacks and can Indirect Fire.

#### Carrier



Strength: 30 Movement: 5

**Cost**: 450

Technology Required: Flight Resources Required: Oil

Special Abilities: Can carry up to three air units.



#### Caravel



Strength: 15, Ranged: 7

Range: 2

Movement: 6 Cost: 120

Technology Required: Astronomy

Resources Required: None

**Special Abilities:** Performs ranged attacks and receives a +2 bonus to

Sight.

#### Destroyer



Strength: 35, Ranged: 22

Range: 2

Movement: 8

Cost: 420

Technology Required: Electricity

Resources Required: None

**Special Abilities:** Performs ranged attacks and air Interceptions, can see submarines, receives a +3 bonus to Sight, receives a +100% combat bo-

nus against submarines, and can Indirect Fire.

#### **Frigate**



Strength: 30, Ranged: 15

Range: 2

Movement: 5

Cost: 180

Technology Required: Navigation

Resources Required: Iron

Special Abilities: Performs ranged attacks.

#### Galley



Strength: 5, Ranged: 3

Range: 2

Movement: 3

Cost: 50

Technology Required: None Resources Required: None

**Special Abilities:** An early Barbarian Naval Unit, it performs ranged attacks and may be converted to your side when playing as the Ottomans.





Strength: 35, Ranged: 18

Range: 2

Movement: 4

Cost: 220

Technology Required: Steam Power

**Resources Required:** Coal

Special Abilities: Performs ranged attacks.

#### Missile Cruiser



Strength: 60, Ranged: 25

Range: 3

Movement: 7

Cost: 700

Technology Required: Robotics Resources Required: Aluminum

Special Abilities: Performs ranged attacks, can Indirect Fire, perform air

interceptions, and carry up to three missile units.

#### **Nuclear Submarine**



Strength: 30, Ranged: 70

Range: 3

Movement: 6

Cost: 600

Technology Required: Computers Resources Required: Aluminum

**Special Abilities:** Is invisible to other units, can see other submarines, can carry up to two missile units, may enter ice tiles, receives a +50% combat

bonus against submarines, and performs ranged attacks.



### Ship of the Line



Strength: 30, Ranged: 17

Range: 2

Movement: 5
Cost: 160

Technology Required: Navigation

Resources Required: Iron

Special Abilities: An English Unique Unit, it receives a +1 bonus to Sight

and performs ranged attacks.

#### Submarine



Strength: 25, Ranged: 60

Range: 3

Movement: 5

**Cost:** 380

Technology Required: Refrigeration

Resources Required: None

**Special Abilities:** Is invisible to other units, can see other submarines, can

enter ice tiles, and performs ranged attacks.

#### **Trireme**



Strength: 6, Ranged: 4

Range: 2 Movement: 4

Cost: 70

Technology Required: Sailing Resources Required: None

Special Abilities: Performs ranged attacks.

# Project Unit List

#### SS Booster



Movement: 2

**Cost:** 700

Technology Required: Robotics Resources Required: None

**Special Abilities:** 3 required for a Science Victory.

### SS Cockpit



Movement: 2 Cost: 1000

Technology Required: Satellites Resources Required: None

Special Abilities: 1 required for a Science Victory.

### SS Engine



Movement: 2 Cost: 1000

**Technology Required:** Particle Physics

Resources Required: None

Special Abilities: 1 required for a Science Victory.

#### SS Stasis Chamber



Movement: 2 Cost: 1000

Technology Required: Nanotechnology

Resources Required: None

**Special Abilities:** 1 required for a Science Victory.

### **Recon Unit List**

#### Scout



Strength: 4
Movement: 2

Cost: 25

Technology Required: None Resources Required: None

**Special Abilities:** Ignores terrain movement costs.

### Siege Unit List

#### **Artillery**



Strength: 16, Ranged: 32

Range: 3 Movement: 2 Cost: 350

Technology Required: Dynamite

Resources Required: None

Special Abilities: Receives a +10% combat bonus versus cities, can Indi-

rect Fire, performs ranged attacks, and must "set up" to attack.

#### Ballista



Strength: 4, Ranged: 14

Range: 2 Movement: 2 Cost: 100

**Technology Required:** Mathematics

Resources Required: Iron

**Special Abilities:** A Roman Unique Unit, it receives a +30% combat bonus versus cities, performs ranged attacks, and must "set up" to attack.





Strength: 10, Ranged: 26

Range: 2

Movement: 2 Cost: 250

Technology Required: Chemistry

Resources Required: None

Special Abilities: Receives a +10% combat bonus versus cities, performs

ranged attacks.

#### Catapult



Strength: 4, Ranged: 11

Range: 2

Movement: 2

**Cost:** 100

**Technology Required:** Mathematics

Resources Required: Iron

**Special Abilities:** Receives a +30% combat bonus versus cities, performs

ranged attacks, and must "set up" to attack.

#### **Rocket Artillery**



Strength: 18, Ranged:46

Range: 3

Movement: 3

Cost: 600

Technology Required: Rocketry Resources Required: Aluminum

Special Abilities: Receives a +10% combat bonus versus cities, can Indi-

rect Fire, and performs ranged attacks.

#### Trebuchet



Strength: 6, Ranged: 16

Range: 2 Movement: 2

**Cost:** 185

Technology Required: Physics

Resources Required: Iron

**Special Abilities:** Receives a +30% combat bonus versus cities, performs

ranged attacks, and must "set up" to attack.

# Unit Promotions

Promotions are special abilities that can be gained by units once they have acquired a certain amount of XP. Depending on the buildings in a unit's city of origin, they may even start their life with promotions ready to be given. Promotion effects stack and do not overwrite each other.

Following is a list of all the available promotions in Civilization V. Remember, not all promotions are available to all types of units.

#### Accuracy I



**Unit Types:** Ranged **Prerequisites:** None

Effects: +20% ranged combat strength against units in open terrain (anything but

Hills, Forest, or Jungle).

#### Accuracy II



**Unit Types:** Ranged

Prerequisites: Accuracy I

Effects: +20% ranged combat strength against units in open terrain (anything but

Hills, Forest, or Jungle).

## Accuracy III



**Unit Types:** Ranged

Prerequisites: Accuracy II

Effects: +25% ranged combat strength against units in open terrain (anything but

Hills, Forest, or Jungle).

#### Ambush I



Unit Types: Melee, Air

Prerequisites: Shock II, Drill II, Interception I, Dogfighting I, Siege I, or Bombardment I

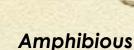
Effects: +25% combat strength vs. armored units.

#### Ambush II



**Unit Types:** Melee, Air **Prerequisites:** Ambush I

Effects: +25% combat strength vs. armored units.





**Unit Types:** Melee, Naval **Prerequisites:** Shock I or Drill I

Effects: Eliminates the combat penalty for attacking from sea or over a river.

#### Barrage I



**Unit Types:** Ranged **Prerequisites:** None

Effects: +25% ranged combat strength against units in rough terrain (Hills, Forest, or

Jungle).

#### Barrage II



Unit Types: Ranged
Prerequisites: Barrage I

Effects: +25% ranged combat strength against units in rough terrain (Hills, Forest, or

Jungle).

## Barrage III



Unit Types: Ranged
Prerequisites: Barrage II

Effects: +25% ranged combat strength against units in rough terrain (Hills, Forest, or

Jungle).

#### Blitz



**Unit Types:** Melee

Prerequisites: Shock III or Drill III

Effects: Unit may attack multiple times in a turn.

## Bombardment I



**Unit Types:** Ranged **Prerequisites:** None

Effects: +20% combat strength against land units.

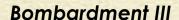
## **Bombardment II**



**Unit Types:** Ranged

Prerequisites: Bombardment I

Effects: +20% combat strength against land units.





**Unit Types:** Ranged

Prerequisites: Bombardment II

Effects: +20% combat strength against land units.

# Charge



**Unit Types:** Melee

Prerequisites: Shock II or Drill II

Effects: +25% combat strength versus wounded units.

#### Cover I



Unit Types: Melee, Ranged

**Prerequisites:** Shock I, Drill I, Accuracy I, or Barrage I **Effects:** +25% defense against all ranged attacks

#### Cover II



**Unit Types:** Melee

Prerequisites: Cover I

Effects: +25% defense against all ranged attacks.

## Discipline



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: +10% combat strength when adjacent to a friendly unit

## Dogfighting I



**Unit Types:** Air

Prerequisites: None

Effects: +25% combat strength when performing an Air Sweep.

## Dogfighting II



**Unit Types:** Air

Prerequisites: Dogfighting I

Effects: +25% combat strength when performing an Air Sweep.

## Dogfighting III



**Unit Types:** Air

Prerequisites: Dogfighting II

Effects: +25% combat strength when performing an Air Sweep.





Unit Types: Melee
Prerequisites: None

Effects: +20% combat strength when fighting on rough terrain (Hills, Forest, or

Jungle).

#### Drill II



Unit Types: Melee Prerequisites: Drill I

Effects: +20% combat strength when fighting on rough terrain (Hills, Forest, or

Jungle).

#### **Drill III**



Unit Types: Melee
Prerequisites: Drill II

Effects: +25% combat strength when fighting on rough terrain (Hills, Forest, or

Jungle).

#### **Embarkation**



Unit Types: Melee, Ranged

Prerequisites: None

Effects: Can embark into water tiles.

#### Evasion



Unit Types: Melee, Ranged

**Prerequisites:** Siege II or Bombardment II

Effects: Reduces damage taken from interceptions by 50%.

#### Formation I



Unit Types: Melee, Ranged

**Prerequisites:** Shock II, Drill II, Accuracy II, or Barrage II **Effects:** +25% combat strength versus mounted units.

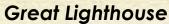
#### Formation II



**Unit Types:** Melee

Prerequisites: Formation I

Effects: +25% combat strength versus mounted units.





Unit Types: Naval
Prerequisites: None

Effects: +1 Movement and +1 Sight

# **Heal Instantly**



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: Instead of receiving a permanent promotion, completely heal this unit

instantly.

## Himeji Castle



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

**Effects:** +25% combat strength in friendly territory

#### **Indirect Fire**



**Unit Types:** Ranged

Prerequisites: Targeting II, Bombardment II, Accuracy III or Barrage III

Effects: Ranged attacks may be performed over obstacles as long as other

friendly units can see the target.

## Interception I



**Unit Types:** Air

Prerequisites: None

Effects: +25% combat strength when intercepting enemy aircraft.

## Interception II



**Unit Types:** Air

Prerequisites: Interception I

Effects: +25% combat strength when intercepting enemy aircraft.

## Interception III



**Unit Types:** Air

Prerequisites: Interception II

Effects: +25% combat strength when intercepting enemy aircraft.





Unit Types: Melee, Siege, Ranged

Prerequisites: Air units: Siege II, Ambush II, Bombardment II or Mobility II

Ranged units: Accuracy III, Barrage III, Targeting III or Bombardment III

Effects: 1 additional attack per turn.

#### March



Unit Types: Melee, Ranged

Prerequisites: Shock III, Drill III, Accuracy II, or Barrage II

Effects: Unit will heal every turn, even if it performs an action.

#### Medic



**Unit Types:** Melee

Prerequisites: Shock I, Drill I, Scouting II, or Survivalism II

Effects: This unit heals all other units in adjacent tiles an additional 1 HP per turn.

## Mobility I



Unit Types: Melee, Air, Ranged

Prerequisites: Shock III, Drill III, Targeting I, or Bombardment I

Effects: +1 Movement

## Mobility II



**Unit Types:** Air

**Prerequisites:** Mobility I **Effects:** +1 Movement

#### Morale



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: +15% combat strength

#### **Nationalism**



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: +25% attack bonus in friendly territory

#### **Naval Tradition**



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: +1 Movement and +1 Sight

## Oligarchy



Unit Types: Melee, Air, Naval, Ranged

Prerequisites: None

Effects: No maintenance cost for garrisoned units and cities with a garrison have

+100% ranged combat strength.

## Range



**Unit Types:** Air, Ranged

Prerequisites: Air units: Interception I, Dogfighting I, Siege I or Bombardment I

Ranged units: Accuracy III, Barrage III, Targeting II or Bombardment II

Effects: +2 operational range for Air, +1 range for Ranged

## Repair



Unit Types: Melee, Air

Prerequisites: Shock III, Drill III, Interception II, Ambush II

Effects: Unit will heal every turn, even if it performs an action.

#### Siege I



**Unit Types:** Melee, Air **Prerequisites:** None

Effects: +25% combat strength versus cities.

## Siege II



**Unit Types:** Melee, Air **Prerequisites:** Siege I

Effects: +25% combat strength versus cities.

## Siege III



**Unit Types:** Melee, Air **Prerequisites:** Siege II

Effects: +25% combat strength versus cities.

## Scouting I



**Unit Types:** Recon **Prerequisites:** None

Effects: +1 visibility range.

## Scouting II



**Unit Types:** Recon

**Prerequisites:** Scouting I **Effects:** +1 Movement.

## Scouting III



**Unit Types:** Recon

**Prerequisites:** Scouting II **Effects:** +1 visibility range.

## Sentry



Unit Types: Melee, Naval, Ranged

Prerequisites: Shock I, Drill I, Targeting I, or Bombardment I

Effects: +1 visibility range.

#### Shock I



Unit Types: Melee
Prerequisites: None

Effects: +20% combat strength when fighting in open terrain (anything but Hills,

Forest, or Jungle).

#### Shock II



Unit Types: Melee
Prerequisites: Shock I

Effects: +20% combat strength when fighting in open terrain.

#### Shock III



Unit Types: Melee

Prerequisites: Shock II

Effects: +25% combat strength when fighting in open terrain.

#### Sortie



Unit Types: Melee, Air

Prerequisites: Interception II or Dogfighting II

Effects: 1 extra interception may be made per turn.





**Unit Types:** Naval

Prerequisites: Targeting II or Bombardment II

**Effects:** A unit may heal damage outside friendly territory, and up to 2 HP per turn.

#### Survivalism I



Unit Types: Melee
Prerequisites: None

**Effects:** Heal an additional 1 HP when outside friendly territory.

#### Survivalism II



**Unit Types:** Melee

**Prerequisites:** Survivalism I **Effects:** +50% Defense.

#### Survivalism III



**Unit Types:** Melee

Prerequisites: Survivalism II

Effects: +50% Defense. Unit will heal every turn, even if it performs an action.

## Targeting I



Unit Types: Naval, Air

Prerequisites: None or Interception I

Effects: +20% combat strength against naval units.

## Targeting II



Unit Types: Naval, Air

Prerequisites: Targeting I

Effects: +20% combat strength against naval units.

## Targeting III



**Unit Types:** Naval

Prerequisites: Targeting II

Effects: +20% combat strength against naval units.

## Volley



**Unit Types:** Ranged

Prerequisites: Accuracy I or Barrage I

Effects: +25% combat strength versus fortified units

# WONDER LIST

Following is a list of all the wonders in the game, including National Wonders, and the effects and requirements of each.

## **World Wonders**

#### **Angkor Wat**



Tech Requirement: Theology

Cost: 350

Cultural Output: 1

Great People Points: 1 Engineer Point

**Effects:** Culture cost of acquiring new tiles reduced by 25% in every city.

#### Big Ben



Tech Requirement: Economics

Cost: 700

Cultural Output: 1

**Great People Points:** 2 Merchant Points

Effects: Cost of Gold purchasing in all Cities is reduced by 25%

## **Brandenburg Gate**



Tech Requirement: Military Science

Cost: 650

Cultural Output: 1

**Great People Points:** 2 Scientist Points

Effects: Free Great General

#### Chichen Itza



Tech Requirement: Civil Service

Cost: 350

Cultural Output: 1

Great People Points: 1 Engineer Point

Effects: Length of Golden Ages increased by 50%.



#### The Colossus



Tech Requirement: Bronze Working

Cost: 220

Cultural Output: 1

Great People Points: 1 Merchant Point

Effects: +1 Gold from all worked water tiles. Must be built in a City located

along a Coast.

#### Cristo Redentor



Tech Requirement: Telegraph

Cost: 1000

Cultural Output: 1

**Great People Points:** 2 Artist Points

Effects: Culture cost of adopting new Policies reduced by 25%.

#### **Eiffel Tower**



Tech Requirement: Radio

Cost: 1000

Cultural Output: 1

**Great People Points:** 2 Merchant Points

Effects: +8 Happiness empire-wide.

#### The Forbidden Palace



Tech Requirement: Banking

Cost: 600

Cultural Output: 1

Great People Points: 1 Artist Point

Effects: Unhappines from number of cities reduced by 25%.

## The Great Library



Tech Requirement: Writing

Cost: 250

Cultural Output: 1

Great People Points: 1 Scientist Point

Effects: Gain a Free Technology.





Tech Requirement: Sailing

Cost: 220

Cultural Output: 1

Great People Points: 1 Merchant Point

Effects: +1 Movement and +1 Sight for all Naval Units. Must be built in a City

along a Coast.

#### The Great Wall



**Tech Requirement:** Construction

Cost: 280

Cultural Output: 1

**Great People Points:** 1 Engineer Point

Effects: Enemy land units must spend 1 additional Movement Point when

inside your territory.

#### The Hagia Sophia



Tech Requirement: Theology

Cost: 350

Cultural Output: 1

Great People Points: 1 Artist Point

**Effects:** Great People generate 33% faster.

## **The Hanging Gardens**



**Tech Requirement:** Mathematics

Cost: 250

Cultural Output: 1

Great People Points: 1 Artist Point

Effects: +1 Population in all existing Cities, +3 Happiness Points.

## Himeji Castle



Tech Requirement: Chivalry

**Cost:** 600

**Cultural Output: 4** 

**Great People Points:** 2 Engineer Points

Effects: +25% Combat Strength bonus to all units in friendly territory.



#### The Kremlin



Tech Requirement: Acoustics

**Cost:** 600

**Cultural Output: 4** 

Great People Points: 1 Scientist Point

Effects: All Defensive Buildings are 50% more effective.

#### The Louvre



Tech Requirement: Archaeology

Cost: 850

Cultural Output: 1

**Great People Points:** 2 Artist Points

**Effects:** 2 free Great Artists appear near the Capital.

#### Machu Picchu



Tech Requirement: Currency

Cost: 420

Cultural Output: 1

**Great People Points:** 1 Merchant Point

Effects: +20% more Gold from all Trade Routes. Must be built in a City within

two tiles of a Mountain.

#### **Notre Dame**



Tech Requirement: Education

Cost: 600

Cultural Output: 1

Great People Points: 1 Merchant Point

Effects: +5 Happiness Points

#### The Oracle



Tech Requirement: Philosophy

Cost: 250

Cultural Output: 1

**Great People Points:** 1 Scientist Point **Effects:** Gain a free Social Policy.



## Pentagon



Tech Requirement: Radar

Cost: 1200

Cultural Output: 1

**Great People Points:** 2 Merchant Points

**Effects:** Gold cost of upgrading military units reduced by 50%.

#### The Porcelain Tower



Tech Requirement: Education

Cost: 600

Cultural Output: 1

**Great People Points:** 2 Scientists Points

Effects: A Great Scientist appears near the city where the Wonder is built.

#### The Pyramids



Tech Requirement: Masonry

Cost: 220

Cultural Output: 1

Great People Points: 1 Engineer Point

**Effects:** Worker construction speed is increased by 50%.

## Sistine Chapel



Tech Requirement: Acoustics

Cost: 600

Cultural Output: 1

**Great People Points:** 2 Artist Points

Effects: An additional +33% Culture is produced in all Cities.

## Statue of Liberty



Tech Requirement: Replaceable Parts

Cost: 1000

Cultural Output: 1

**Great People Points:** 3 Engineer Points

Effects: +1 Production gained for every Specialist in all Cities.



## Stonehenge



Tech Requirement: Calendar

Cost: 220

**Cultural Output: 8** 

**Great People Points:** 1 Engineer Point

Effects: +8 Culture.

#### **Sydney Opera House**



Tech Requirement: Globalization

Cost: 1200

Cultural Output: 1

**Great People Points:** 2 Artist Points **Effects:** Choose one free Social Policy.

## Taj Mahal



**Tech Requirement:** Printing Press

Cost: 600

Cultural Output: 1

**Great People Points:** 2 Artist Points **Effects:** Empire enters a Golden Age.

#### **United Nations**



Tech Requirement: Globalization

Cost: 1200

Cultural Output: 1

**Great People Points:** 2 Merchant Points

Effects: Completion triggers voting for the Diplomatic Victory. Builder receives

two votes in the election.

# National Wonders

National wonders may be constructed once a specific building is existent in all cities in your empire.

#### Hermitage



Tech Requirement: Archaeology

**Cost:** 300

Culture Output: 5

**Building Required:** Museum

Effects: Doubles output of Culture in this City.

# Heroic Epic



Tech Requirement: Iron Working

Cost: 100

Cultural Output: 1

**Building Required:** Barracks or Russian Krepost

**Effects:** All new Units in this City receive the Morale Promotion for free.

#### Ironworks



Tech Requirement: Machinery

Cost: 140

Cultural Output: 1

**Building Required:** Workshop, Iroquois Longhouse **Effects:** +20% Production in the City where this is built.

## **National College**



Tech Requirement: Writing

Cost: 100

Cultural Output: 1

Building Required: Library, Chinese Paper Maker

Effects: +5 Science and +50% Science in the City where this is built.

## **National Epic**



Tech Requirement: Philosophy

Cost: 100

Cultural Output: 1

**Building Required: Monument** 

Effects: +25% Great People generation in the City where this is built.



## **Oxford University**



Tech Requirement: Education

Cost: 210

Cultural Output: 1

**Building Required:** University, Siamese Wat

Effects: Gain a free Technology.

#### Palace



Tech Requirement: None

Cost: 0

**Cultural Output:** 1

**Building Required: None** 

**Effects:** Indicates the Capital City and is built automatically for free. Cities connected to the Capital by roads produce additional Gold. Also produces

an extra +2 Production, +3 Science, +2 Gold, and +2.5 Defense for this City.

# BUILDING LIST

## **Armory**



Tech Requirement: Iron Working

Cost: 100

Maintenance: 2
Specialist Slot: None

Effects: +15 EXP for all new Land Units, requires a Barracks or the Russian Kre-

post in the City

#### Arsenal



Tech Requirement: Railroad

Cost: 450

Maintenance: 3
Specialist Slot: None

Effects: +20% Production of Land Units, requires a Military Academy.

#### Bank



Tech Requirement: Banking

Cost: 250

Maintenance: 0

**Specialist Slot:** Merchants

Effects: +25% Gold, requires a Market or Bazaar.

#### **Barracks**



Tech Requirement: Bronze Working

Cost: 70

Maintenance: 1

Specialist Slot: None

Effects: +15 XP for all new Land Units.

#### Bazaar



Tech Requirement: Currency

Cost: 120

Maintenance: 0

Specialist Slot: Merchants

Effects: An Arabian Unique Building, it grants +25% more Gold and provides 1

extra copy of each Luxury Resource near the City.



#### **Broadcast Tower**



Tech Requirement: Radio

Cost: 600

Maintenance: 3

Specialist Slot: None

Effects: Doubles the culture output of a City, but requires a Museum.

#### **Burial Tomb**



Tech Requirement: Philosophy

Cost: 100

Maintenance: 0

Specialist Slot: None

**Effects:** +2 Culture and +2 Happiness empire-wide, but it doubles the amount of Gold the enemy receives if this City is captured. An Egyptian Unique Build-

ing.

#### Castle



Tech Requirement: Chivalry

Cost: 200

Maintenance: 0

Specialist Slot: None

Effects: +7.5 Combat Strength to the City, requires Walls be present in the

City.

#### Circus



Tech Requirement: Horseback Riding

Cost: 80

Maintenance: 0

Specialist Slot: None

Effects: +2 Happiness. The City must have a source of improved Horses or

Ivory nearby.

#### Colosseum



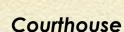
Tech Requirement: Construction

Cost: 120

Maintenance: 2

Specialist Slot: None

Effects: +3 Happiness





**Tech Requirement:** Mathematics

Cost: 100

Maintenance: 4

Specialist Slot: None

Effects: Eliminates Unhappiness from an Occupied City.

#### **Factory**



Tech Requirement: Steam Power

Cost: 400

Maintenance: 3

**Specialist Slot:** Engineers

Effects: +25% Production and +3 Production, requires that a Workshop or

Longhouse be present, and consumes 1 Coal.

#### **Floating Gardens**



Tech Requirement: The Wheel

Cost: 70

Maintenance: 1

Specialist Slot: None

**Effects:** An Aztec Unique Building, the city gains +15% Food, +2 Food for each worked Lake tile, and +1 Production. The City must border either a Lake or

Divor

River.

## Forge



Tech Requirement: Metal Casting

Cost: 100

Maintenance: 2

Specialist Slot: None

Effects: +15% Production of Land Units, requires a source of Iron nearby.

#### Garden



Tech Requirement: Theology

Cost: 100

Maintenance: 1

Specialist Slot: None

Effects: +25% Great People generation, the City must be built along a River

or Lake.



#### Granary



Tech Requirement: Pottery

Cost: 70

Maintenance: 1

Specialist Slot: None

Effects: +2 Food

#### Harbor



**Tech Requirement:** Compass

Cost: 120

Maintenance: 3

Specialist Slot: None

Effects: Forms a naval Trade Route with the Capital City, +25% Production of

Naval Units, City must be on a coast.

## Hospital



Tech Requirement: Biology

**Cost**: 350

Maintenance: 2

Specialist Slot: None

**Effects:** 50% of Food is carried over after a new citizen is born.

## **Hydro Plant**



**Tech Requirement:** Plastics

Cost: 600

Maintenance: 3

Specialist Slot: None

Effects: +1 Production for every tile bordering a River. Requires the City be

located next to a River, and consumes 1 Aluminum.

## Krepost



Tech Requirement: Bronze Working

Cost: 70

Maintenance: 1

Specialist Slot: None

**Effects:** A Russian Unique Building, it increases the City's cultural border growth by +25%. Also, the Krepost provides +15 XP for all new Land Units.



## Library



Tech Requirement: Writing

Cost: 70

Maintenance: 1

**Specialist Slot:** Scientists

Effects: +1 Science for every 2 Citizens in the City.

## Lighthouse



Tech Requirement: Optics

Cost: 70

Maintenance: 1

Specialist Slot: None

Effects: +1 Food from Water Tiles. The City must be located along the coast.

#### Longhouse



Tech Requirement: Metal Casting

Cost: 100

Maintenance: 2

**Specialist Slot:** Engineers

Effects: An Iroquois Unique Building, it provides +1 Production from each For-

est tile worked by the City.

#### Market



Tech Requirement: Currency

Cost: 120

Maintenance: 0

**Specialist Slot:** Merchants

Effects: +25% Gold

#### Medical Lab



Tech Requirement: Penicillin

Cost: 600

Maintenance: 3

Specialist Slot: None

Effects: 25% of Food is carried over after a new citizen is born.



## **Military Academy**



Tech Requirement: Military Science

**Cost:** 350

Maintenance: 3

Specialist Slot: None

Effects: +15 XP for all new Land Units, requires a Barracks or Russian Krepost.

## **Military Base**



Tech Requirement: Telegraph

Cost: 500

Maintenance: 0

Specialist Slot: None

Effects: +12 Defense, requires either a Castle or Mughal Fort.

#### Mint



Tech Requirement: Currency

Cost: 120

Maintenance: 0

Specialist Slot: None

Effects: Each source of city's worked Gold and Silver provides an extra +3

Gold.

## Monastery



Tech Requirement: Theology

Cost: 100

Maintenance: 0

Specialist Slot: None

Effects: +3 Culture. +2 Culture per turn from Incense and +2 Culture per turn

from Wine.

#### Monument



Tech Requirement: None

Cost: 40

Maintenance: 1

Specialist Slot: None

Effects: +2 Culture



## **Mud Pyramid Mosque**



Tech Requirement: Philosophy

Cost: 100

Maintenance: 0

**Specialist Slot:** Artists

**Effects:** A Songhai Unique Building, the City gains +5 Culture.

#### **Mughal Fort**



Tech Requirement: Chivalry

Cost: 180

Maintenance: 0

Specialist Slot: None

**Effects:** An Indian Unique Building, it provides the City with +9 Defense, +2 Culture, and after Flight is researched, extra Gold. Walls must be present in

the City to build.

#### Museum



Tech Requirement: Archaeology

Cost: 350

Maintenance: 3

**Specialist Slot:** Artists

Effects: +5 Culture, requires an Opera House.

#### **Nuclear Plant**



Tech Requirement: Nuclear Fission

Cost: 800

Maintenance: 3

Specialist Slot: None

Effects: +35% Production and +4 Production, consumes 1 Uranium, requires

Factory, cannot be built in a city with a Solar Plant.

## Observatory



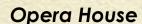
Tech Requirement: Astronomy

Cost: 200

Maintenance: 0

Specialist Slot: None

Effects: +50% Science, requires that the City be built next to a Mountain.





Tech Requirement: Acoustics

Cost: 250

Maintenance: 2

**Specialist Slot:** Artists

Effects: +4 Culture, requires a Temple, Burial Tomb or Mud Pyramid.

#### **Paper Maker**



Tech Requirement: Writing

Cost: 70

Maintenance: 0

**Specialist Slot:** Scientists

Effects: Chinese Unique Building, +1 Science for every 2 Citizens in the city, +2

Gold

#### **Public School**



**Tech Requirement:** Scientific Theory

**Cost**: 350

Maintenance: 3

**Specialist Slot:** Scientists

Effects: +1 Science for every Citizen in the city and +1 culture, requires either

a University or Wat be present.

#### Research Lab



**Tech Requirement:** Plastics

Cost: 600

Maintenance: 3

**Specialist Slot:** Scientists

Effects: +100% Science, requires that a Public School be present.

## Satrap's Court



Tech Requirement: Banking

**Cost: 250** 

Maintenance: 0

**Specialist Slot:** Merchants

Effects: A Persian Unique Building, it provides +25% Gold and +2 Happiness.

Requires a Market in the City.





Tech Requirement: Navigation

Cost: 180

Maintenance: 2

Specialist Slot: None

Effects: +2 Production from Sea Resources. The City must have at least one

improved Sea Resource nearby.

#### Solar Plant



Tech Requirement: Ecology

Cost: 800

Maintenance: 3

Specialist Slot: None

**Effects:** +35% Production and +4 Production, but the City must be either located on or border a Desert, requires Factory, cannot be built in a city with a

Nuclear Plant.

#### **Spaceship Factory**



Tech Requirement: Robotics

Cost: 800

Maintenance: 3

Specialist Slot: None

Effects: +50% Production of Spaceship Parts. Requires that a Factory be pres-

ent and consumes 1 Aluminum.

#### Stable



Tech Requirement: Horseback Riding

Cost: 100

Maintenance: 1

Specialist Slot: None

Effects: +15% Production of Mounted Units. The City must have a source of

improved Horses nearby.

#### Stadium



Tech Requirement: Mass Media

Cost: 600

Maintenance: 3

Specialist Slot: None

Effects: +5 Happiness, requires a Theatre be present.





Tech Requirement: Electricity

Cost: 600

Maintenance: 0

**Specialist Slot:** Merchants

Effects: +33% Gold, requires either a Bank or Satrap's Court.

**Temple** 



Tech Requirement: Philosophy

Cost: 120

Maintenance: 2

**Specialist Slot:** Artists

Effects: +3 Culture, and requires that a Monument be present in the City.

**Theatre** 



**Tech Requirement:** Printing Press

Cost: 250

Maintenance: 3

Specialist Slot: None

Effects: +4 Happiness, requires a Colosseum.

University



**Tech Requirement:** Education

Cost: 200

Maintenance: 2

**Specialist Slot:** Scientists

Effects: +50% Science, +2 Science from worked Jungle Tiles. Requires a Li-

brary or Paper Maker in the City.

Walls



Tech Requirement: Masonry

Cost: 80

Maintenance: 0

Specialist Slot: None Effects: +5 Defense



#### Wat



Tech Requirement: Education

Cost: 200

Maintenance: 2

**Specialist Slot:** Scientists

Effects: A Siamese Unique Building, it provides the City with +3 Culture and

+50% Science Production.

#### **Water Mill**



Tech Requirement: The Wheel

Cost: 70

Maintenance: 2

Specialist Slot: None

**Effects:** +1 Production and +2 Food, City must border a River to construct.

#### Windmill



**Tech Requirement:** Economics

**Cost**: 250

Maintenance: 2

**Specialist Slot:** Engineers

Effects: +15% Production on buildings and +2 Produciton, but the City cannot

be located on a Hill.

## Workshop



Tech Requirement: Metal Casting

Cost: 120

Maintenance: 2

**Specialist Slot:** Engineers

Effects: +20% construction speed of buildings.

# CIVILIZATION LIST

Following is a list of all the available civs and leaders in Civilization V, detailing their particular traits and unique abilities.

## Arabia



The Muslim Empire of the Caliphate — also known as the Islamic Empire or the Arab kingdom — came into existence after the Prophet Mohammed's death in 632 AD, created by Mohammed's disciples as a continuation of the political authority he established. During its six-hundred-year existence, the Caliphate would grow to enormous size and power, dominating Spain, North Africa, the Middle East, Anatolia, the Balkans and Persia, ruling an empire that at least rivaled that of the Romans at the height of their power.

#### Leader: Harun al-Rashid



(763 - 809 AD)

Harun al-Rashid (which translates roughly as "Aaron the Rightly Guided") was the fifth Abbasid Caliph, ruling the Arabian Empire from 786 to 809 AD. During his reign the Caliphate stretched from Spain in the west to Anatolia in the north to India in the east, and it was the largest and most powerful political entity in the world. Harun was an able ruler, and his reign was a time of scientific and cultural advancement and prosperity for his subjects.

## **Unique Trait**

Trade Caravan: +1 Gold from each Trade Route and Oil resources provide double quantity...



Unique Unit Camel Archer Replaces Knight



Unique Building
Bazaar
Replaces Market

## **Aztec**



The Aztecs were a Native American civilization that dominated central Mexico for roughly one hundred years in the 15th and 16th centuries. The Aztecs ruled a mighty empire and possessed a rich culture, producing some of the most impressive pre-Colombian architecture in North America. Today the Aztecs are best remembered for the bloodiness of their religious practices and rapidity with which they collapsed in the face of external assault, but at the height of their power they were indeed a mighty empire.

#### Leader: Montezuma



(c. 1397 - 1469 AD)

A mighty warrior and leader, Montezuma I helped propel the Aztec nation to greatness and glory. (He should not be confused with his unfortunate grandson Montezuma II, who watched helplessly as his empire was dismantled by Spanish Conquistadors.) He expanded his empire, personally led his armies to victory, and worked hard to improve the lot of his people. He certainly was a bloody man, personally sacrificing thousands of prisoners to his thirsty

gods. But his religion said such barbarity was necessary — blood was required to ensure that the sun would rise, the crops would grow, and the Aztec nation would continue to prosper. And under Montezuma it did prosper greatly.

## **Unique Trait**

Sacrificial Captives: Gains Culture for the empire from each enemy unit killed.



**Unique Unit Jaguar** *Replaces Warrior* 



Unique Building
Floating Gardens
Replaces Watermill

## China



China is a civilization spanning some six thousand years and comprising a large fraction of humanity. There is evidence of man's prehistoric ancestors living in China some two million years ago, and modern man has lived in the area for at least 18,000 years, possibly much longer. A creative and innovative people, the Chinese have given the world some of the most important inventions in history, including paper, gunpowder, the compass, and movable type. Once the self-proclaimed "center of the world," for many cen-

turies China looked inward only, ignoring as much as possible all that went on outside of its borders. Having survived centuries of foreign colonial intervention and domination, today China has again become a great economic and industrial power.

#### Leader: Wu Zetian



(c. 625 - 705 AD)

Like most civilizations, China has been male-dominated throughout much of its history. Until very recently, women were afforded few rights, and direct power was all but totally denied to them. For a woman to attain the rank of Emperor, to become the most powerful person in China, was almost unheard of. Only one person in the entirety of Chinese history was able to do so. That

person was Wu Zetian, one of the most remarkable rulers – female or male – the world has ever seen.

## **Unique Trait**

Art of War: Effectiveness and birth rate of Great Generals increased.



Unique Unit Chu-Ko-Nu Replaces Crossbowman



Unique Building
Paper Maker
Replaces Library

# Egypt



Few civilizations have left such an indelible mark on history as that of Egypt. Living astride the mighty Nile River for some 5,000 years, Egypt is one of the oldest surviving civilizations on the planet. Among many other firsts, Egypt is credited with the invention of writing around 3000 BC. Using sophisticated mathematics, Egyptian scholars plotted the movement of the planets with great precision. And of course, the Egyptians were the ancient world's greatest architects, creating monuments and temples that still awe and

inspire us today.

#### Leader: Ramesses The Great (c. 1303 – 1203 BC)



Ramesses II is considered to be Egypt's greatest and most powerful pharaoh. Taking the throne in his twenties, Ramesses ruled Egypt for more than 60 years. Ramesses is remembered as a great military leader as well as for the extensive construction programs he instituted. He is also remembered for building a new capital city, Pi-Ramesses. Some historians believe that Ramesses is the pharaoh in the biblical story of Moses.

## **Unique Trait**

**Monument Builders:** +20% Production speed of Wonders.



Unique Unit War Chariot Replaces Chariot Archer



Unique Building
Burial Tomb
Replaces Temple

# **England**



England is located on Great Britain, a "green and pleasant" island off the western coast of Europe. It is the largest member of the political entity known as the United Kingdom of Great Britain and Northern Ireland. Historically a seafaring people, for much of the past 500 years the English have used their incomparable navy to project their power into Europe and across the globe.

Queen Elizabeth's reign saw the first British colony established on the New World, while the powerful British navy protected the growing British interests across the world. England's earliest colonial interests lay in the Caribbean and North America, but over time they expanded into Asia and the South Pacific as well, and Britain would come to dominate the entire Indian subcontinent, the "Jewel in the British Crown."

In the late 18<sup>th</sup> century Britain lost control of much of North America to the Thirteen Colonies (later, the United States of America) in a long and difficult revolution. While this was a great blow to British prestige, the Empire continued to expand unabated, and by the early 20<sup>th</sup> century the British Empire was the largest and most powerful in history, encompassing one quarter of the Earth's landmass and human population.

Although Great Britain lost most of its empire following the desperate struggles of World Wars I and II, the country has recovered much of its energy and pride in the years since. In the early 21<sup>st</sup> century Great Britain remains a powerful force in Europe and around the world.

#### Leader: Queen Elizabeth I (1533 - 1603 AD)



Elizabeth I was a remarkable woman living in a remarkable age. Beautiful, brilliant, and as tough as nails, she survived and indeed thrived, ruling in an era when most women were little more than chattel. Born with an unerring survival instinct and flair for self-promotion, her personal charisma and courage matched those of the strongest rulers in history. No better words can serve to describe her than her own: "I know I have the body of a weak and

feeble woman, but I have the heart and stomach of a king."

## **Unique Trait**

**Sun Never Sets:** +2 MPs for all ocean-going naval units.



Unique Unit
Longbowman
Replaces Crossbowman



Unique Unit Ship of the Line Replaces Frigate

## France



Located in Western Europe, bordering six (or seven, depending upon how you count them) European countries and with coasts on the Atlantic Ocean, the English Channel, and the Mediterranean, France has long been one of the great political, military and cultural powers of the Western world. Born of Roman occupation, first unified by Charlemagne and the Holy Roman Empire, France achieved the height of its military power under the brilliant general Napoleon Bonaparte, following the catastrophic, world-

shaking French Revolution. For ten years, France fought off the combined powers in Europe, singly and in groups, its armies seeing brilliant successes across Europe, an astonishing feat of arms even if ultimately unsuccessful.

Today France is a major power in the European Union. It remains one of the great centers of culture on the planet, and its food, wine, and art have conquered the world, even if the Emperor could not.

## Leader: Napoleon Bonaparte (1769 - 1821 AD)



It is virtually impossible to overstate the military genius of Napoleon Bonaparte. He moved his troops with astounding rapidity, and he always knew exactly where to strike in order to cause the most damage. Domestically he turned out to be an able administrator and imaginative ruler and France flourished under his control (until his endless wars sapped her strength and will to fight). An Army general to his core, he never was able to create a navy able to

seriously challenge Great Britain's dominance over the oceans, and this weakness eventually destroyed him. Had there been a land bridge connecting England and Europe, they'd probably be speaking French in Piccadilly Circus today.

## **Unique Trait**

Ancient Regime: Provides +2 Culture per City until Steam Power.



Unique Unit Foreign Legion Replaces Infantry



Unique Unit Musketeer Replaces Musketman

# Germany



While various "Germanic" peoples have occupied northern-central Europe for thousands of years, the modern political entity known as "Germany" is extremely young, created almost single-handedly by the brilliant Prussian politician Otto von Bismarck some 140 years ago. During its brief existence Germany has had a profound effect – for good and for bad – on human history. Following the catastrophic World Wars of the first half of the 20<sup>th</sup> century, its firm alliance with its historical rival, France, has allowed it to con-

centrate its energies on rebuilding its technological and economic base, and Germany has rebounded into a major European power once more.

#### Leader: Otto Von Bismarck (1815 – 1898 AD)



Otto von Bismarck, also known as the "Iron Chancellor," is perhaps the most significant figure in German history. An able ruler and brilliant and cunning diplomat, during his long political career Bismarck unified Germany and founded the German Empire; Germany was transformed from a weak and loose confederation of states into a powerful united country that would dominate continental Europe for years to come.

## **Unique Trait**

**Furor Teutonicus:** When a Barbarian encampment is destroyed, there's a 50% chance of gaining 25 Gold and a Barbarian unit joining your side.



**Unique Unit Landsknecht** *Replaces Pikeman* 



**Unique Unit Panzer**Replaces Tank

## Greece



It is difficult to overstate the impact that Greece has had upon Western culture and history. Classical Greece has given birth to some of the greatest artists, philosophers, scientists, historians, dramatists and warriors the world has known. Greek warriors and colonists spread their culture throughout the Mediterranean and into the Near and Far East. The heirs to Greece, the Romans, further promulgated Greek thought throughout Europe, and from there it spread across the oceans and into the New World.

Greece and her people are credited with an astonishing number of inventions and discoveries, including the first theatrical performance, work of history, and philosophic treatise. The Greeks provided the West's first recorded sporting event, poem, and building dedicated to theatre. In politics, the Greeks created the world's first known democracy and republic. Greek influence is still all around us: today's doctors still take the Hippocratic Oath, and modern architects still look to classical Greek forms for inspiration. To a large degree, Western civilization is Classical Greek civilization.

#### Leader: Alexander the Great (356 – 323 BC)



Alexander the Macedonian is unquestionably one of the great warlords of all time. In 17 short years he marched his army to victory after victory across Europe, Asia, Africa and the Middle East, conquering every civilization he could reach. Alexander's conquests allowed Hellenic culture to spread across most of the known world, and Greek would become the language of culture, art and science for centuries to come.

With the exception perhaps of one or two religious leaders, no single man has had such a great effect upon western civilization as did Alexander the Great.

## **Unique Trait**

**Hellenic League:** City-State influence degrades half as slowly as normal, and it recovers at twice the speed as for other civilizations.



Unique Unit
Companion Cavalry
Replaces Horseman



Unique Unit Hoplite Replaces Spearman

## India



The Republic of India is the second most populous country in the world and the largest democracy. A land of contrasts, India contains great wealth and grinding poverty. It possesses high-tech cities and primitive villages. In it one can find beauty and squalor, hope and despair. It is one of the oldest civilizations on the planet, and a people of deep faith and boisterous energy. Having emerged from the shadow of Great Britain and survived a wrenching loss of the people and lands that comprise Pakistan, India is once again

assuming its rightful place as one of the world's great powers.

#### **Leader: Gandhi** (1869 – 1948 AD)



Mohandas Gandhi was an Indian patriot who led India's nonviolent independence movement against British Imperial rule in the early to mid-twentieth century. He pioneered "satyagraha," or resistance to tyranny through mass civil disobedience, a ploy used to great effect against the British raj. Today Gandhi is considered to be one of the great figures in human history. He is recognized as a courageous and tireless champion for justice and moral

behavior, in South Africa fighting just as hard for the rights of other downtrodden people as he did for fellow Indians. He is also acknowledged as a brilliant political leader who organized a successful independence campaign against one of the most powerful empires the world has ever seen. Of him, Martin Luther King said, "Christ gave us the goals and Mahatma Gandhi the tactics".

## **Unique Trait**

**Population Growth:** Unhappiness from number of Cities is doubled, and Unhappiness from total population is halved. (Build fewer, bigger cities!)



Unique Unit War Elephant Replaces Chariot Archer



Unique Building
Mughal Fort
Replaces Castle

# Iroquois



According to tradition the Iroquois Confederation came into being around AD 1570. The Confederation was a union of five (later six) Native American tribes. With a population that probably never exceeded 20,000, lacking a written language and possessing no manufacturing base at all, for two centuries the Iroquois managed to hold their own against the French, English, Dutch, and later Colonial Americans, proving themselves to be some of the most accomplished irregular fighters in history.

#### Leader: Hiawatha (c. 1450?)



Hiawatha (or "Ayonwentah") is the legendary chief of the Onondaga Indians who, with the equally-legendary Chief Dekanawidah, formed the Iroquois Confederacy. Little is known about Hiawatha the man; according to Iroquois tradition he taught the people agriculture, navigation, medicine, and the arts, using his great magic to conquer all of man's supernatural and natural enemies. Hiawatha is also believed to have been a skilled orator who

through his honeyed words persuaded the five tribes — Cayugas, Onondagas, Oneidas, Senecas, and Mohawks — to form the Five Nations of the Iroquois.

What little the West knows about Hiawatha is usually seen through the prism of Henry Wadsworth Longfellow's remarkable epic poem, Song of Hiawatha.

## **Unique Trait**

**The Great Warpath:** Units may move through Forest and Jungle tiles as if they were roads when in friendly territory.



Unique Unit Mohawk Warrior Replaces Swordsman



Unique Building Longhouse Replaces Workshop

# Japan



The islands of Japan are born of the unimaginable violence of plate tectonics, arising as the Pacific Plate is ground beneath the Eurasian Plate. The result is a mountainous land of great beauty and peril, where the people live and thrive in a narrow corridor between volcano and sea.

For much of its history, Japan was divided into many small kingdoms which expended huge quantities of time, energy and effort warring with each other. Betrayal was common, as was deceit, backstabbing, and cold-blood-

ed assassination. The violence would lead to the rise of the Samurai professional warrior class, would end only when the great Oda Nobunaga and his heirs unified the country in the 16<sup>th</sup> – 17<sup>th</sup> centuries.

In the modern era, Japan has survived the unimaginable catastrophe of World War II, nuclear attack and Western occupation, emerging to be one of the great economic and cultural powerhouses of the late 20<sup>th</sup> – early 21<sup>st</sup> centuries.

#### Leader: Oda Nobunaga (1534 – 1582 AD)



Oda Nobunaga was a 16th century Japanese warlord. Both a brilliant general and a cunning politician — as well as an early adopter of new technology — Nobunaga fought and backstabbed his way to domination over nearly half of feudal Japan. His two lieutenants, Toyotomi Hideyoshi and Tokugawa leyasu, would complete the job after his death. Nobunaga was a brutal man in a brutal time. But by helping to unify Japan he brought an end to the

brutal wars that had been ravishing his country for more than a century.

## **Unique Trait**

Bushido: Units' attack and defense strengths remain at full, even when the unit is damaged.



Unique Unit Samurai Replaces Longswordsman



Unique Unit Zero Replaces Fighter

# Ottoman Empire



The Ottoman Empire was born in Anatolia (in modern Turkey) at the start of the 13<sup>th</sup> century. It expanded into three continents and thrived for some six centuries. At its height, the Ottoman Empire took on all of Europe and beat it. It conquered Persia, Egypt, and North Africa, not to mention a goodly chunk of the Balkans. It destroyed the Byzantine Empire. Although relatively unknown in the West, this mighty empire deserves a place of honor along-side those of Arabia, Great Britain, and indeed Rome.

## Leader: Suleiman the Magnificent (1494 – 1566 AD)



Suleiman I, known as "The Magnificent," "The Legislator" and "The Grand Turk," was the caliph of Islam and the sultan of the Ottoman Empire, taking the reins of the Turkish kingdom in 1520 and ruling until his death in 1566. During his rule Suleiman greatly expanded the Empire's territory, earning the fear (and grudging admiration) of leaders across Europe, Africa, Asia and the Middle East.

At the time of his death Suleiman was famous across the known world. In Europe he was envied for his unbelievable wealth, his magnificent treasury containing more riches than any other leader had possessed in history. He was admired for his military prowess and respected for his fair treatment of non-Muslim subjects.

Almost everyone — Christian and Muslim alike — agreed that he was fully worthy of the title "The Magnificent."

## **Unique Trait**

**Barbary Corsairs:** Whenever you destroy a Barbarian naval unit, there's a 50% chance of instead converting it to your side and earning 25 Gold.



Unique Unit Janissary Replaces Musketman



Unique Unit Sipahi Replaces Lancer

## Persia



Born in 559 BC after a successful rebellion against the Medes, the Achaemenian Persian Empire survived and thrived in a dangerous neighborhood for some 200 years. At its height it dominated the land from India to Egypt, from Iran to the Balkans. It was an awkward and ungainly empire, spanning three continents with citizens speaking dozens of different languages. At their best, the Achaemenian kings were lawgivers who treated their subject populations with clemency and fairness, interfering as little as possible with provin-

cial internal policies as long as the subjects behaved themselves. At worst, the Achaemenian kings were incompetent bullying backstabbers.

Whatever else they were, the Achaemenian kings were survivors. Two hundred years is a long time for a single family to remain in power. If they hadn't lived next to Alexander and Philip of Macedon – two of the greatest military leaders in the entire history of the world — they might have remained in power another 100 years. Alexander the Great himself was a brilliant leader and warlord, but his own empire barely survived his death by a year.

#### **Leader: Darius I** (550 – 486 BC)



The son of a satrap (governor) of Parthia, Darius I forcibly took the throne of Persia upon the death of Cambyses II in 522 BC. An administrative genius, during his reign Darius reorganized the sprawling Persian empire, greatly increasing its wealth and power. He also implemented many great construction works across Persia. He constructed roads, reorganized the Persian provinces and government, secured the empire's borders, and generally treated

his subjects about as well as or better than anyone in that time. Although not primarily known as a warlord, he fought a number of successful campaigns against both internal and external foes.

## **Unique Trait**

**Achaemenid Legacy:** Golden Ages lasts 50% longer. Units receive a movement bonus and a +10% attack and defense strength bonus during a Golden Age.



Unique Unit
Immortal
Replaces Spearman



Unique Building
Satrap's Court
Replaces Bank

## Rome



The Roman Empire is the most remarkable and long-lived political entity in the history of Western Civilization. It was founded around the 8<sup>th</sup> century BC, and portions of it survived until the 14<sup>th</sup> century AD. The Romans were great innovators in some areas, and they were not shy about appropriating good ideas they found in other cultures.

The Romans were a warrior people. At the height of their power, the Romans ruled an empire which covered much of England, all of Western Europe,

North Africa, Egypt, Greece, and the Middle and Near East. During their long rule of Europe and the Mediterranean, the Romans greatly shaped Western culture, law, art, architecture, religion, language, and warfare.

## Leader: Augustus Caesar (63 BC - 14 AD)



Born Gaius Octavius, Augustus would become the first (and possibly greatest) Roman Emperor. He ended a century of civil wars and initiated two hundred years of the Pax Romana (Roman Peace) while overseeing a golden age of Roman literature and culture. During Augustus' long rule Rome flourished and the Empire came to dominate the Mediterranean basin. The policies he put in place kept the Empire running smoothly, so much so that

Rome would continue to rule the entire known world for almost two centuries without any major wars or other significant threats to its survival. Few if any leaders in world history could make the same claim.

## **Unique Trait**

**The Glory of Rome:** +25% Production bonus when constructing a building (in another city) that already has been constructed in the Capital.



Unique Unit Ballista Replaces Catapult



Unique Unit Legion Replaces Swordsman

## Russia



As Winston Churchill once said, Russia is a riddle, wrapped in a mystery, inside an enigma. It is a part of Europe and a part of Asia, yet separate from both. It is rich with natural resources, yet its people have historically been grindingly poor. It has been invaded and overrun by Goths, Huns, Mongols, French and Germans, yet remains uniquely Russian. It has been a superpower and a nearly failed state, a monarchy, communist dictatorship and democracy – all within a span of 100 years. Indeed, Russia is one of the most

fascinating civilizations in human history.

#### Leader: Catherine the Great (1729 - 1796 AD)



Catherine the Great ruled Russia during the latter half of the 18th century. She oversaw a great expansion of the Russian empire, adding tens of thousands of square miles of territory through conquest and shrewd diplomacy. A beautiful and intelligent woman, she beguiled and seduced the best minds of Europe, making her court one of the centers of Enlightenment thinking on the Continent. Although born in Germany, Catherine is one of the greatest

rulers in Russian history. Like Queen Elizabeth I of England, she proved that a woman could be smart enough and tough enough to lead a great country.

## **Unique Trait**

**Mother Russia:** Resources provide +1 Production, and Horses, Iron and Uranium deposits are doubled.



Unique Unit Cossack Replaces Cavalry



**Unique Building**Krepost
Replaces Barracks

## Siam



Located in Southeast Asia between Myanmar, Laos, Cambodia and Malaysia, Siam – now Thailand – has a long and storied history. A beautiful and mysterious land of dark forests and ancient mountains, Siam has seen occupation and revolution, flood and famine, and the rise and fall of empires. A romanticized view of Siam persists in the West, largely because of the entertaining and highly inaccurate musical, "The King and I." The reality is much more interesting and has fewer lovable English governesses civilizing things.

In fact, Siam's greatest triumph may have been its avoidance of European colonial domination, unlike that suffered by every other Southeast Asian country.

## Leader: Ramkhamhaeng (1240 – 1298 AD)



In 1278, a prince named "Ramkhamhaeng" inherited the small and unimportant kingdom of Sukhothai. In twenty years, employing a brilliant combination of military genius and shrewd diplomacy, he expanded his country's borders and influence to cover much of Southeast Asia. Ramkhamhaeng is viewed today as a great leader and the first to rule over a united Siam.

## **Unique Trait**

**Father Governs Children:** Food and Culture gifts from friendly City-States are increased by 50%.



Unique Unit Naresuan's Elephant Replaces Knight



Unique Building Wat Replaces University

# Songhai



The Songhai Empire was a civilization that flourished in West Africa during the 15th and 16th centuries. The Songhai first appeared near the city of Gao, which was a vassal of the Malinese Empire. In the early 14th century the Songhai gained independence from the Mali, and over the next two centuries it expanded, eventually becoming the largest empire in African history. Like the Aztec empire, it fell to a relatively small band of invaders armed with markedly superior technology. This is an important lesson for all who play

Civilization: "Never bring a knife to a gunfight. Bring an assault rifle and a stealth bomber."

#### Leader: Askia (c. 1440 – 1538 AD)



Mohammad ibn Abi Bakr Ture, also known as Mohammad I Askia (reigned 1493–1528), welded the central region of the western Sudan into a single Songhai empire, the largest in African history. Although he fought several military campaigns, he is primarily remembered for reorganizing, modernizing and bringing stability to the Songhai people, and his reign is viewed as a veritable Golden Age in Western Africa.

## **Unique Trait**

**River Warlord:** Receive triple the standard amount of Gold when destroying Barbarian encampments and when pillaging Cities. Embarked units can defend themselves.



Unique Unit Mandekalu Cavalry Replaces Knight



Unique Building
Mud Pyramid Mosque
Replaces Temple

## **United States of America**



The United States of America is a world "super-power" (which more-or-less means that it possesses weapons capable of destroying everything on the planet). A relatively young civilization, the United States formed in the 18<sup>th</sup> century, nearly self-destructed in the 19<sup>th</sup> century, and became the most powerful and dominant military, technological, cultural and economical civilization in the 20<sup>th</sup>. One can hardly wait to see what it will become in the 21<sup>st</sup>.

## Leader: George Washington (1732 - 1799 AD)



George Washington was one of a group of remarkable men who lived in the American Colonies in the late eighteenth century. Although not as pugnacious as John Adams, as imaginative as Benjamin Franklin or as brilliant as Thomas Jefferson, Washington had the capacity to lead, in war and in peace. He led the Continental Army to victory against extraordinary odds, and by so doing he led his country to independence.

George Washington is known for good reason as the "Father of his country." Possessing a great steadiness and courage in the face of adversity, he was able to get men to willingly die for him. Without Washington, it's unlikely that the United States would have been born.

## **Unique Trait**

Manifest Destiny: Increases Unit sight and provides a discount on tile costs.



Unique Unit
Minuteman
Replaces Musketman



**Unique Unit** B17 Bomber Replaces Bomber



Multiplayer games let you pit your skills directly against those of other players, rather than just against the computer-controlled AI. Multiplayer games can be accessed from the Main Menu, and may be enjoyed over a LAN (Local Area Network) with friends or with players all the way across the globe.

# Multiplayer Menu

From the main menu, select the "Multiplayer" button to navigate to the Multiplayer games options screen.

## **Local Games**



From here, click on the Local Network game option to browse for available LAN (Local Area Network) games. A list of available local games will populate the browser view: click on any of these games to join. If you don't see any games (or none you're interested in) you can click the "Host Game" button to create your own. Click the "Refresh" button to refresh the list of available games at any time.

When you choose to Host a game, you'll be taken to the Setup Multiplayer Game screen. From here you can choose your leader, set the map type and size, and select your game pace. You can also load a previously saved Multiplayer game

(more on that later), or return to the Browser to see the list of available games again. Click on "Start Game" once you've finalized your selections.

From here you'll enter the Staging Room where you can see what leaders everyone has chosen, and whether all the players are ready or not. An Al player will be denoted with the name "Al", whereas a human player will be denoted using his or her Steam alias.

Note that if two or more players attempt to select the same civ and leader, the game will change the duplicated leader's team color to a new one, as to avoid any possible confusion.

Once all players have clicked "Ready," the host may click the button "Launch Game" to start up the game.





Internet Multiplayer games are hosted on Steam through the account the player used during the game's installation.

#### **Browsing for Games**

You can choose to enter the internet game browser or Host your own game, following the same steps as for a LAN game.

#### Friends List

Your Steam friends list is available to you when hosting a Multiplayer internet game. While in the Staging Room, you can select a friend from the drop down list and invite them directly to any game you're hosting. They'll receive a notification via Steam's Overlay.

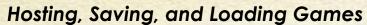


#### Chat



You can chat with other players both during the setup process and in-game. In the Staging Room screen, you can type to all players using the chat window at the bottom of the screen. In game, you can choose to either chat with all the players or only with a specific one at a time, allowing for private conversations, trades, and alliances to occur. To bring up the chat panel in-game, click on the "Open Chat" button in the right hand corner of the HUD. You can click on the "Close Chat" button once you're done to hide the pane from view.

Voice-Over-IP (VOIP) is provided through Steam's Overlay feature, allowing you to talk directly to other players using a microphone.



When hosting a game, you can save your game's progress and load it up at a later date, especially useful for long-running games which can span longer than a day. From within the Setup Multiplayer Game Screen, click the "Load Game" button to browse your list of saved games.

If for any reason you become disconnected while playing a Multiplayer game, the system will try to reconnect you automatically. If the host of a game leaves (for whatever reason), the game will attempt to migrate the host controls to a different player.



## Game and Map Sizes

The number of player slots available for a Multiplayer game is limited, by default, by the chosen map size.

Default Game Maps available:

Map Size	Number of Players	Number of City-States
Duel	2	4
Tiny	4	8
Small	6	12
Standard	8	16
Large	10	20
Huge	12	24

If all the available player slots are not filled for a given map, Al players will take over the missing roles.

# Mods



Civilization V has been designed from the very beginning with the modders in mind, and it is the easiest and most accessible Civ yet to mod. Even if you aren't interested in making a mod (yet), you can quickly and easily find mods other players have created, and download and install them all from within the game. Playing and creating mods has never been better.

From the Main Menu, select the "Mods" button to navigate to the Mods Screen (be sure to accept the EULA on the way). From here you can choose to begin a game using pre-downloaded and installed mods (more on that later), or browse new available mods.

# Browsing, Downloading, and Rating

Click the "Browse Mods" button to bring up the Mods Browser. This will list out all the mods you have previously downloaded and installed, and whether that mod is currently active. Click on the "Enabled" button to enable or disable a downloaded mod. Yes, you can have more than one mod at a time active!

Click on the "Online" button to bring up the online Mod Browser, showing all available mods for download. From here, you can filter available mods by category, search by keyword, or filter by date of upload, number of downloads, or player ranking.



Click on a mod to bring up more detailed information, view screenshots, or choose to download. Downloading mods through the browser is free, and anonymous – you don't need to login to any account to do so.

After playing a mod, you can choose to rate it so that others may be more aware of its awe-someness. Simply click on the "Like" button on any mod's page to rate up that mod. Rating a mod is also anonymous and doesn't require any account information.

## XML

The easiest way to get into modding is available to anyone with access to a text editor. If you can type, you can mod. The game's XML (Extensive Markup Language) files hold all the game's nitty-gritty details, like all of Napoleon's trade dialogue or exactly how far an Archer unit can move in one turn. Any of the game's XML files can be easily changed and updated from within any text editor, allowing you to make customizations ranging from how much damage a Warrior can deal to creating whole new civilizations and leaders.

# MODBUDDY AND THE WORLD BUILDER SDK



You may download ModBuddy and the World Builder SDK, the official modding tools for *Civ V* through Steam. This package will allow you to make custom maps and scenarios, change minute behavior of the game's AI, and package up your custom mods so that others can download and enjoy them too. Visit *Civ V's* official web page or the Steam game page for more information and updates. ModBuddy and the World Builder SDK will be available for download through Steam. Navigate to the Tools section of the Games tab to download.

# **Tutorials and Examples**

If you're new to modding (or just want some extra help), check out the SDK's folders for extensive tutorials and examples on how to use the powerful new system. Learn from the developers themselves on how best to utilize this new system.

# **Uploading a Mod**

When you've finished a mod and want to show it proudly to the world at large, simply use ModBuddy to upload your mod to the official server. Follow the on-screen instructions on how to package and name your mod.

When uploading, you must give your mod a name, upload between one and three screenshots showing important or cool aspects of your mod, and tag your mod with one to three categories. A unique ID will be assigned to your mod once everything is created.

To upload a mod, you must have a Gamespy account. ModBuddy will prompt you for preexisting account information, or walk you through the steps required if you need to make one. Gamespy accounts are free.

# **Mods in Single Player**

Click on the "Single Player" button on the Mods menu to bring up the available options for playing a modded game. You can either play a specific custom map, load a saved game, or create a new custom game using mods.

# **Automatic Mod Updates**

The game will automatically check for updates to any mods you have installed which are available through the Mod Browser system. These updates will automatically be downloaded and applied if you have an active internet connection.



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Pfeffersack Primax

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totallycres
Valkrionn
Velociryx
vondrack
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For a complete listing of the Civilization V music credits, please visit: www.civilization5. com/musiccredits

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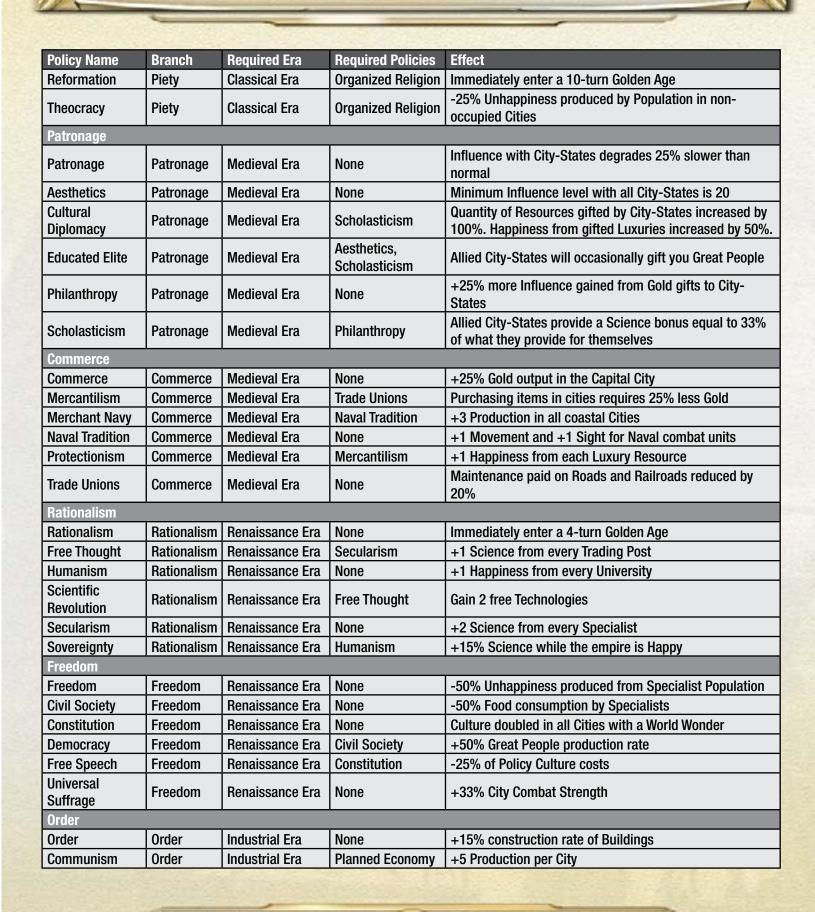
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# CHARTS AND TABLES

# **POLICIES**

Policy Name	Branch	Required Era	Required Policies	Effect
Tradition				
Tradition	Tradition	None	None	+3 Culture in Capital and greatly increased rate of border expansion
Aristocracy	Tradition	None	None	+20% Production when building Wonders
Landed Elite	Tradition	None	Legalism	+15% Growth and +2 Food in all cities
Legalism	Tradition	None	None	Free Monuments in your first 4 cities
Monarchy	Tradition	None	Legalism	+1 Gold and -1 Unhappiness for every 2 Citizens in Capita
Oligarchy	Tradition	None	None	Free maintenance for garrisons and cities with garrisons have double the Ranged Combat strength
Liberty				
Liberty	Liberty	None	None	1 Culture in every city
Citizenship	Liberty	None	None	+25% construction rate of Workers. Receive a free Worke
Collective Rule	Liberty	None	None	Speeds the training of Settlers by 50% in the Capital. Receive a free Settler
Meritocracy	Liberty	None	Citizenship	+1 Happiness for every 2 cities connected to the capital. Receive a free Great Person.
Representation	Liberty	None	Citizenship	Limits policy cost increases as you found cities. Starts a Golden Age.
Republic	Liberty	None	Collective Rule	+1 Production in every City
Honor				
Honor	Honor	None	None	+25% combat bonus versus Barbarians, and a notification sent when new Barbarian Camps are spawned within revealed territory
Discipline	Honor	None	None	+10% combat strength for units in a tile next to other military units
Military Caste	Honor	None	Discipline	-1 Unhappiness for each City with a Garrison
Military Tradition	Honor	None	Warrior Code	Military Units gain 50% more Experience from combat
Professional Army	Honor	None	Military Caste	Gold cost of Upgrading Military Units reduced by 50%
Warrior Code	Honor	None	None	A Great General appears outside the Capital City
Piety				
Piety	Piety	Classical Era	None	+2 to Happiness
Free Religion	Piety	Classical Era	Mandate of Heaven, Reformation	Gain 2 free Policies
Mandate of Heaven	Piety	Classical Era	None	50% of excess Happiness added to the amount of Culture per turn
Organized Religion	Piety	Classical Era	None	Amount of Happiness required to start a Golden Age reduced by 25%



Policy Name	Branch	Required Era	Required Policies	Effect
Nationalism	Order	Industrial Era	None	+25% attack bonus when fighting in friendly territory
Planned Economy	Order	Industrial Era	Socialism	-50% Unhappiness from number of Cities
Socialism	Order	Industrial Era	None	-10% Gold maintenance cost of Buildings
United Front	Order	Industrial Era	None	Other players' City-State Influence Points decrease 33% faster
Autocracy				
Autocracy	Autocracy	Industrial Era	None	-33% Gold Maintenance cost for Units
Fascism	Autocracy	Industrial Era	Populism, Militarism	Quantity of Strategic Resources produced increases by 100%
Militarism	Autocracy	Industrial Era	None	Gold cost of purchasing units reduced by 33%.
Police State	Autocracy	Industrial Era	Militarism	-50% Unhappiness in Occupied Cities
Populism	Autocracy	Industrial Era	None	Wounded military units inflict +25% more damage
Total War	Autocracy	Industrial Era	Police State, Fascism	For 20 turns, all Military Units receive a 33% attack bonus

# TERRAIN

Terrain	Food	Production	Gold	Combat Modifier	Movement Cost	Possible Features Found	Possible Resources Found
Base Terrain							
Coast	1	0	1	0%	1	Ice	Fish, Whales, Pearls, Oil
Desert	0	0	0	-10%	1	Oasis, Flood Plains	Iron, Oil, Aluminum, Uranium, Gold, Silver, Gems, Marble, Cotton, Incense, Sheep
Grassland	2	0	0	-10%	1	Forest, Marsh	Iron, Horses, Coal, Uranium, Cattle, Gold, Gems, Marble, Cotton, Wine, Sheep
Hill	0	2	0	+25%	2	Forest, Jungle	Iron, Coal, Aluminum, Uranium, Deer, Gold, Silver, Gems, Marble, Sheep
Lakes	2	0	1	0%	Impassable	None	None
Mountain	0	0	0	+25%	Impassable	None	None
Ocean	1	0	1	0%	1	Ice	None
Plains	1	1	0	-10%	1	Forest, Jungle	Iron, Horses, Coal, Aluminum, Uranium, Wheat, Gold, Gems, Marble, Ivory, Cotton, Wine, Incense, Sheep
Snow	0	0	0	-10%	1	None	Iron, Oil, Uranium
Tundra	1	0	0	-10%	1	Forest	Iron, Horses, Oil, Aluminum, Uranium, Deer, Silver, Gems, Marble, Furs

# TERRAIN FEATURES

				Combat		
Feature	Food	Production	Gold	Modifier	<b>Movement Cost</b>	Possible Resources Found
Terrain Features						
Barringer Crater	0	2	3	0%	Impassable	None
Fallout	-3	-3	-3	-33%	2	None
Flood Plains	2	0	0	-10%	1	Wheat, Sugar
Forest	1	1	0	+25%	2	Uranium, Deer, Furs, Dyes, Silk
Grand Mesa	0	2	3	0%	Impassable	None
Great Barrier Reef	0	2	3	0%	Impassable	None
Ice	0	0	0	0%	Impassable	None
Jungle	1	-1	0	+25%	2	Oil, Uranium, Bananas, Gems, Dyes, Spices
Krakatoa	0	2	3	0%	Impassable	None
Lakes	2	0	1	0%	Impassable	None
Marsh	-1	0	0	-33%	3	Oil, Uranium, Sugar
Mt. Fuji	0	2	3	0%	Impassable	None
Oasis	3	0	1	-10%	1	None
Old Faithful	0	2	3	0%	Impassable	None
Rivers	0	0	1	0%	All Remaining Points	None
Rock of Gibraltar	0	2	3	0%	Impassable	None

# KEYBOARD SHORTCUTS

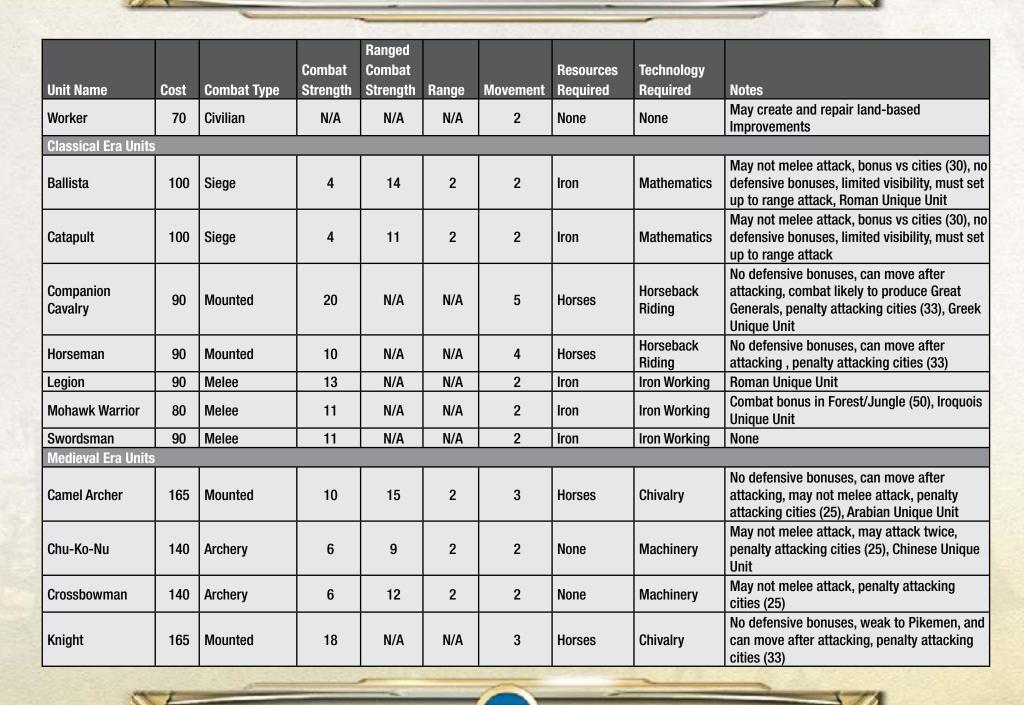
Action	Hotkey
General Hotkeys	
Civilopedia	F1
Economic Info	F2
Military Info	F3
Diplomacy Info	F4
Social Policies Screen	F5
Tech Screen	F6
Notification Log	F7
Victory Progress	F8
Demographics	F9
Strategic View	F10
Quick Save	F11
Quick Load	F12
Hex Grid	G
Menu	Esc
End Turn	Enter
Next Unit	Period
Previous Unit	Comma
Zoom out	-
Zoom in	+
Capital City View	Insert
Capital City View	Home
Capital City View	End
Zoom in	Page Up
Zoom out	Page Down
Show resource icons	R
Yield icons	Υ
Game Options	Ctrl-0
Save	Ctrl-S
Load	Ctrl-L
End Turn	Ctrl Space
General Units	
Move Mode	M
Explore (Automated)	E
Alert	Α
Sleep	F
Do Nothing	Spacebar

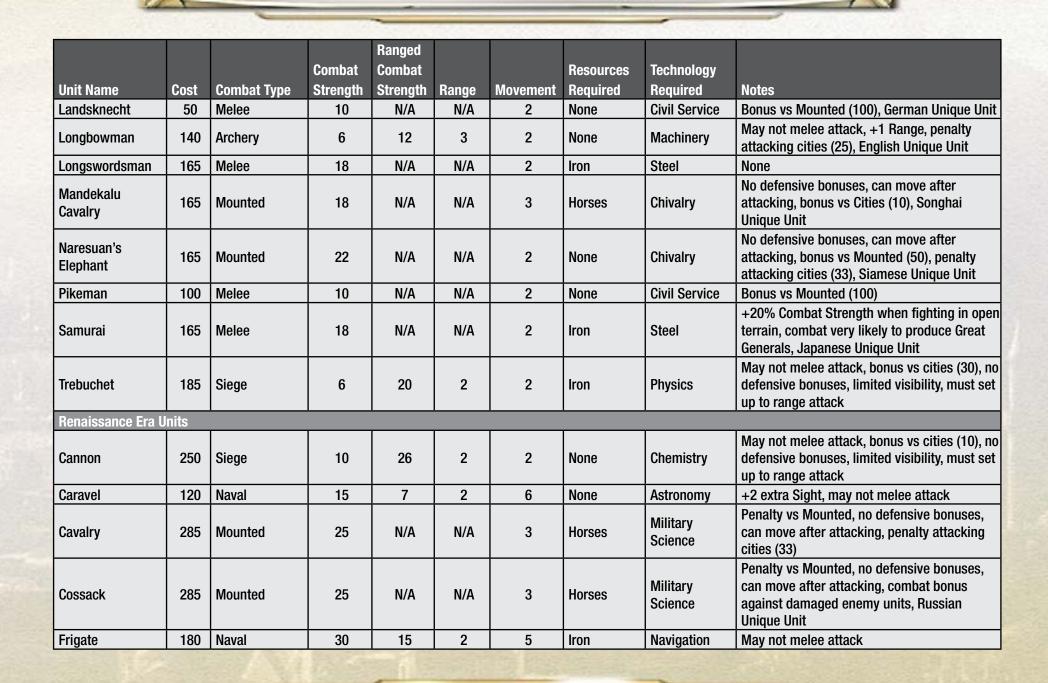
Action Ho	M				
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Delete the Unit De	lete				
Attack Ctr	Ctrl-A				
Ranged Attack B	В				
Set Up Artillery S					
Fortify until healed H					
Air Units					
Rebase Mode Alt	-R				
Air Strike Mode S					
Air Sweep Alt	-S				
Intercept I					
Nuke Mode N					
Civilian Units					
Found City B					
Build Improvements A					
(Automated)					
Construct a Road R	R				
Construct a Railroad R	R				
Route to Mode Alt	Alt-R				
Remove Jungle Alt	-C				
Clear a Marsh Alt	-C				
Construct a Farm I					
Construct a Trading Post T					
Construct a Camp H					
Construct a Farm I					
Construct a Mine N					
Construct a Plantation P					
Construct a Quarry Q					
Construct a Pasture P					
Construct a Fort Ctr	1-F				
Construct a Well 0					
Create Fishing Boats F					
Create Offshore Platform 0					
Remove Forest Alt	-C				
Cancel Last Mission Bac	ckspace				
Construct a Lumber Mill L					
Citadel C					

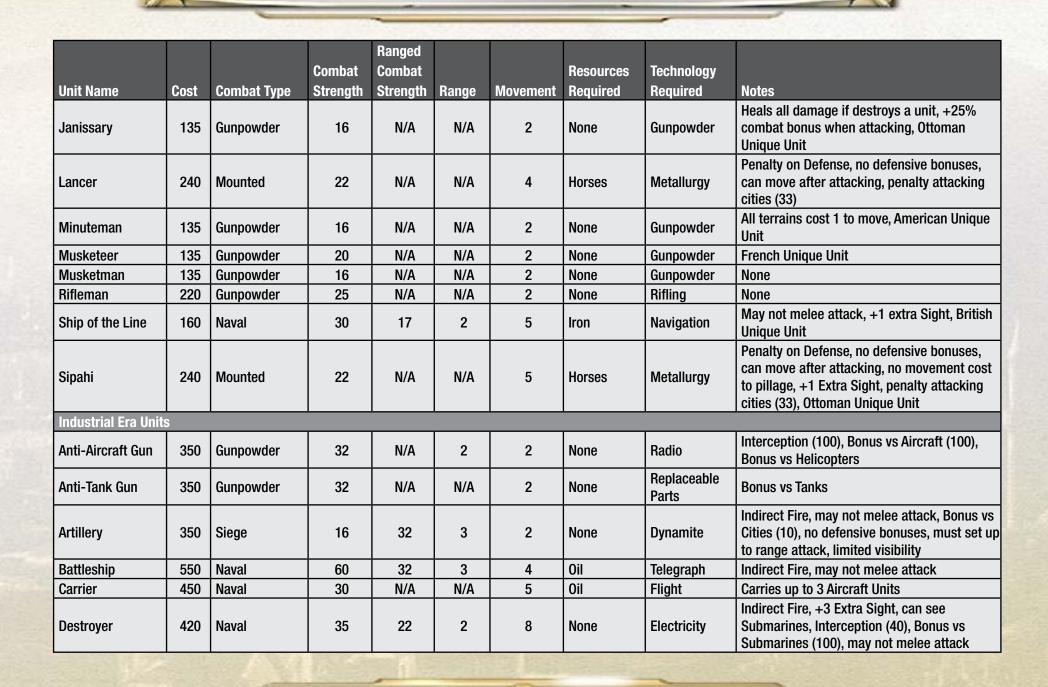
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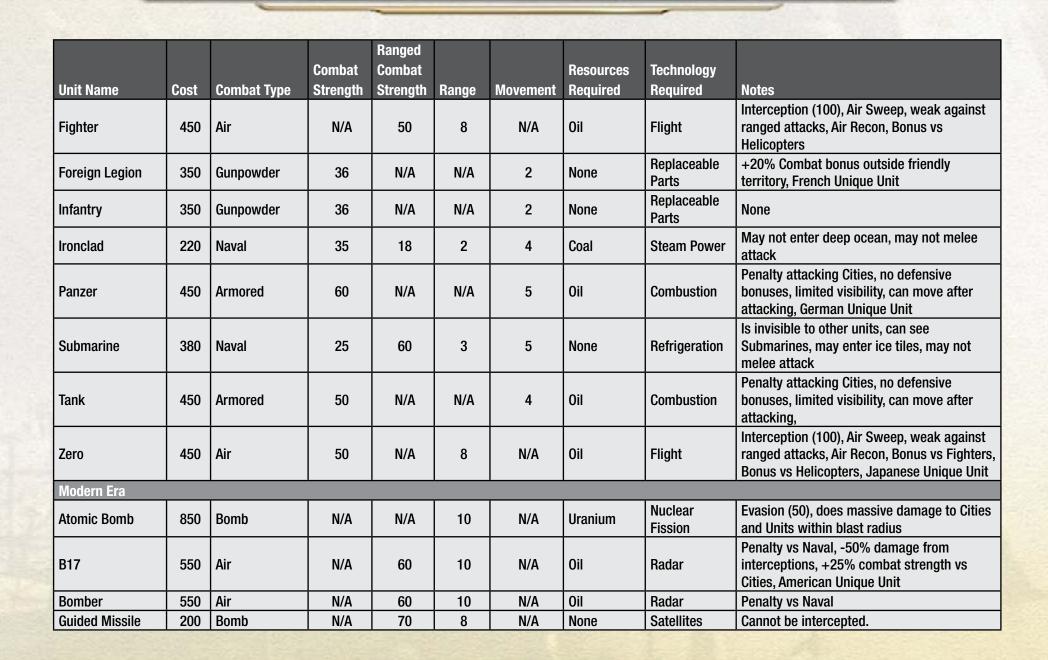
# Units

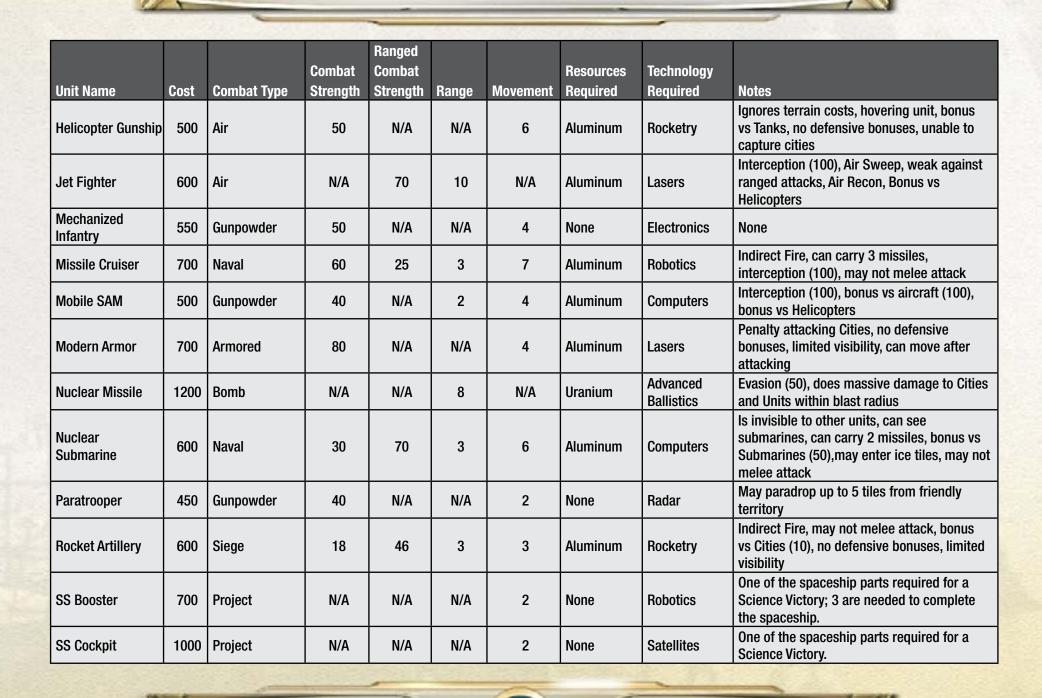
Unit Name Ancient Era Units	Cost	Combat Type	Combat Strength	Ranged Combat Strength	Range	Movement	Resources Required	Technology Required	Notes
Archer	75	Archery	4	6	2	2	None	Archery	May not melee attack, penalty attacking cities (25)
Brute	20	Melee	6	N/A	N/A	2	None	None	Barbarian replacement for the Warrior
Chariot Archer	70	Mounted	3	6	2	4	Horses	The Wheel	May not melee attack, rough terrain penalty, and no defensive bonuses
Galley	50	Naval	5	3	2	3	None	None	Barbarian vessel, may not melee attack, may not enter deep ocean
Hoplite	70	Melee	9	N/A	N/A	2	None	Bronze Working	Bonus vs Mounted (100), Greek Unique Unit
Immortal	60	Melee	8	N/A	N/A	2	None	Bronze Working	Bonus vs Mounted (100), Heals at Double Rate,Persian Unique Unit
Jaguar	40	Melee	6	N/A	N/A	2	None	None	Combat Bonus in Jungle (50), Heals 2 Damage if kills a Unit, Aztec Unique Unit
Scout	25	Recon	4	N/A	N/A	2	None	None	Ignores Terrain Cost
Settler	106	Civilian	N/A	N/A	N/A	2	None	None	Can found a new City
Spearman	60	Melee	7	N/A	N/A	2	None	Bronze Working	Bonus vs Mounted (100)
Trireme	70	Naval	6	4	2	4	None	Sailing	May not melee attack, cannot enter deep ocean
War Chariot	70	Mounted	3	6	2	5	None	The Wheel	May not melee attack, rough terrain penalty, and no defensive bonuses, Egyptian Unique Unit
War Elephant	85	Mounted	6	8	2	3	None	The Wheel	May not melee attack, no defensive bonuses, Indian Unique Unit
Warrior	40	Melee	6	N/A	N/A	2	None	None	None
Work Boat	50	Civilian	N/A	N/A	N/A	4	None	Sailing	May create Fishing Boats and Offshore Platforms













			Combat	Ranged Combat			Resources	Technology	
Unit Name	Cost	Combat Type	Strength	Strength	Range	Movement	Required	Required	Notes
Stealth Bomber	800	Air	N/A	80	20	N/A	Aluminum	Stealth	Penalty vs Naval, Evasion (100), Air Recon
Future Era									
Giant Death Robot	1000	Armored	150	N/A	N/A	3	Uranium	Nuclear Fusion	Penalty Attacking Cities, no defensive bonuses, can move after attacking
SS Engine	1000	Project	N/A	N/A	N/A	2	None	Particle Physics	One of the spaceship parts required for a Science Victory.
SS Stasis Chamber	1000	Project	N/A	N/A	N/A	2	None	Nano- technology	One of the spaceship parts required for a Science Victory.

# Buildings

			Technology		
Name	Cost	Maintenance	Required	Specialist Slots	Notes
Ancient Era Build	lings				
Barracks	70	1	Bronze Working		+15 XP for all Land Units
Floating Gardens	70	1	The Wheel		+15% Food, +2 Food for each worked Lake tile, city must border a Lake or River, Aztec Unique Building
Granary	70	1	Pottery		+2 Food
Krepost	70	1	Bronze Working		A Russian Unique Building, it provides +15 XP for all Land units and reduces the Culture cost of buying new tiles by 25%.
Library	70	1	Writing	Scientist	+1 Science for every 2 Citizens in the City
Monument	40	1	None		+2 Culture
Paper Maker	70	0	Writing	Scientist	Chinese Unique Building, +1 Science for every 2 Citizens in the City, +2 Gold
Walls	80	0	Masonry		+5 Defense
Water Mill	70	2	The Wheel		+2 Food, +1 Production, City must border a River
Classical Era Bui	ldings				
Armory	100	2	Iron Working		+15 XP for all Land Units, Requires Barracks or Krepost
Burial Tomb	100	0	Philosophy		+2 Culture and +2 Happiness, doubles amount of Gold given to the enemy if City is captured, Egyptian Unique Building
Circus	80	0	Horseback Riding		+2 Happiness, City must have a source of improved Horses or Ivory nearby
Colosseum	120	2	Construction		+3 Happiness
Courthouse	100	4	Mathematics		Eliminates Unhappiness from an occupied City
Lighthouse	70	1	Optics		+1 Food from Water Tiles, city must border coast
Mud Pyramid Mosque	100	0	Philosophy	Artist	+5 Culture, Songhai Unique Building
Stable	100	1	Horseback Riding		+15% Production of mounted units, city must have a source of improved Horses nearby
Temple	120	2	Philosophy	Artist	+3 Culture, Requires Monument
Medieval Era Bui	ldings				
Bazaar	120	0	Currency	Merchant	+25% Gold, provides 1 extra of Luxury Resources near city, Arabian Unique Building
Castle	200	0	Chivalry		+7.5 Defense to city, Requires Walls



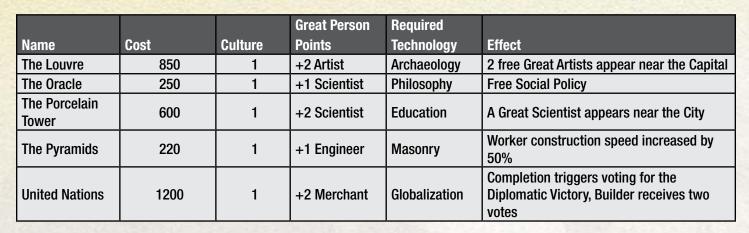


Name	Cost	Maintenance	Technology Required	Specialist Slots	Notes
<b>Broadcast Tower</b>	600	3	Radio		Doubles Culture, Requires Museum
Factory	400	3	Steam Power	Engineer	+25% Production and +3 Production, Requires 1 Coal
Hospital	350	2	Biology		-50% Food used up for City Growth
Military Base	500	4	Telegraph		+12 Defense, Requires Castle or Mughal Fort
Stock Exchange	600	0	Electricity	2 Merchants	+33% Gold, Requires Bank or Satrap's Court
<b>Modern Era Build</b>	lings				
Hydro Plant	600	3	Plastics		+1 Production for every tile bordering a River, Requires River, Requires 1 Aluminum
Medical Lab	600	3	Penicillin		-25% Food used up for City Growth, Requires Hospital
Nuclear Plant	800	3	Nuclear Fission		+35% Production and +4 Production, Requires 1 Uranium, Requires Factory, cannot be built in city with Solar Plant
Research Lab	600	3	Plastics	Scientist	+100% Science, Requires Public School
Solar Plant	800	3	Ecology		+35% Production and +4 Production, City must border a Desert, Requires Factory, cannot be built in city with Nuclear Plant
Spaceship Factory	800	3	Robotics		+50% Production of Spaceship Parts, Requires 1 Aluminum, Requires Factory
Stadium	600	3	Mass Media		+5 Happiness, Requires Theatre

## Wonders

## **World Wonders**

			<b>Great Person</b>	Required	
Name	Cost	Culture	Points	Technology	Effect
Angkor Wat	350	1	+1 Engineer	Theology	Culture cost of acquiring new tiles reduced by 25% in every city
Big Ben	700	1	+2 Merchant	Economics	-25% Gold cost for purchasing items in cities
Brandenburg Gate	650	1	+2 Scientist	Military Science	Free Great General
Chichen Itza	350	1	+1 Engineer	Civil Service	Length of Golden Ages increased by +50%
Cristo Redentor	1200	1	+2 Artist	Telegraph	Culture cost of adopting new Policies reduced by 25%
Eiffel Tower	1000	1	+2 Merchant	Radio	+8 Happiness empire-wide
Himeji Castle	600	4	+2 Engineer	Chivalry	+25% combat strength for all units in friendly territory
Machu Picchu	420	1	+1 Merchant	Currency	+20% Gold from Trade Routes, must be built within 2 tiles of a mountain.
Notre Dame	600	1	+1 Merchant	Education	+5 Happiness
Pentagon	1200	1	+2 Merchant	Radar	Gold cost of upgrading military units reduced by 50%
Sistine Chapel	600	1	+2 Artist	Acoustics	+33% Culture in all Cities
Statue of Liberty	1000	1	+3 Engineer	Replaceable Parts	+1 Production for every Specialist in all Cities
Stonehenge	220	8	+1 Engineer	Calendar	+8 Culture empire-wide
Sydney Opera House	1200	1	+2 Artist	Globalization	Free Social Policy
Taj Mahal	600	1	+2 Artist	<b>Printing Press</b>	Immediately enter a Golden Age
The Colossus	220	1	+1 Merchant	Bronze Working	+1 Gold from worked water tiles, Requires City to be on coast
The Forbidden Palace	600	1	+1 Artist	Banking	Unhappiness from number of cities reduced by 25%
The Great Library	250	1	+1 Scientist	Writing	Free Technology
The Great Lighthouse	220	1	+1 Merchant	Sailing	+1 Movement and +1 Sight for all Naval Units, Requires City to be on coast
The Great Wall	280	1	+1 Engineer	Construction	Enemy Land Units must spend 1 extra Movement Point when inside your territory
The Hagia Sophia	350	1	+1 Artist	Theology	+33% generation of Great People
The Hanging Gardens	250	1	+1 Artist	Mathematics	+1 Population in all existing Cities, '+3 Happiness
The Kremlin	600	4	+1 Scientist	Acoustics	Defensive Buildings are 50% more effective



### **National Wonders**

			Building Required in all	Required	
Name	Cost	Culture	Cities	Technology	Effect
Hermitage	310	0	Museum	Archaeology	Doubles output of Culture in this City
Heroic Epic	110	1	Barracks or Russian Krepost	Iron Working	All new Units in this city receive the Morale Promotion
Ironworks	140	1	Workshop or Longhouse	Machinery	+20% Production
National College	120	1	Library or Paper Maker	Writing	+50% Science
National Epic	120	1	Monument	Philosophy	+25% Great People generation in this city
Oxford University	210	1	University or Wat	Education	Free Technology
Palace	0	1	None	None	Indicates the Capital City. Cities connected by a Road to the Capital produce additional Gold. +2 Production, +3 Science, +2 Defense, and +2 Gold

## **PROJECTS**

Name	Cost	Required Technology	Effect
Apollo Program	1200	Rocketry	Allows the building of Spaceship Parts
SS Booster	700	Robotics	3 Required for the Science Victory
SS Cockpit	1000	Satellites	1 Required for the Science Victory
SS Engine	1000	Particle Physics	1 Required for the Science Victory
SS Stasis Chamber	1000	Nanotechnology	1 Required for the Science Victory
The Manhattan Project	800	Atomic Theory	Allows the building of Atomic Bombs and Nuclear Missiles
Utopia Project	1500	None	Unlocks after fulling exploring 5 Social Policy Branches. Building triggers a Cultural Victory

## RESOURCES

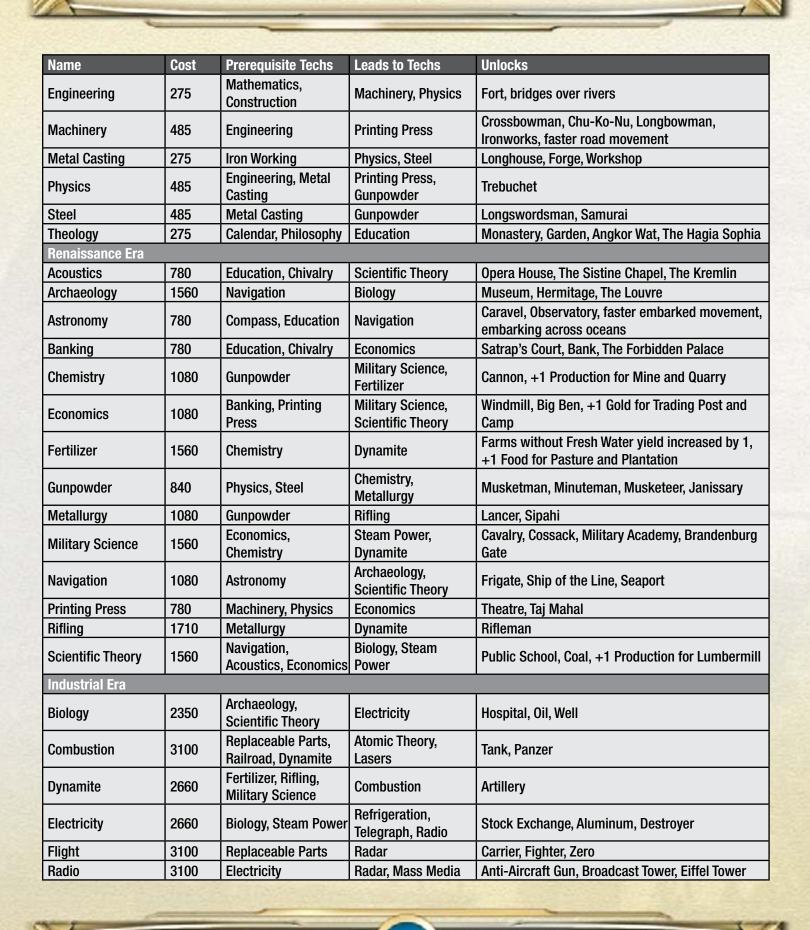
					Improvement		
Name	Food	Production	Gold	Can be Found on	needed	Notes	
Bonus Resources							
Bananas	1	0	0	Jungle	Plantation		
Cattle	1	0	0	Grasslands	Pasture		
Deer	1	0	0	Forests, Tundra, or Hills	Camp		
Fish	1	0	0	Coast	Fishing Boats		
Sheep	1	0	0	Grasslands, Plains, Deserts, or Hills	Pasture		
Wheat	1	0	0	Flood Plains, Plains	Farm		
Strategic Res	sources						
Aluminum	0	1	0	Plains, Desert, Tundra, or Hills	Mine	Revealed by Electricity	
Coal	0	1	0	Grasslands, Plains, or Hills	Mine	Revealed by Scientific Theory	
Horses	0	1	0	Grasslands, Plains, or Tundra	Pasture	Revealed by Animal Husbandry	
Iron	0	1	0	Grasslands, Plains, Desert, Tundra, Snow or Hills	Mine	Revealed by Iron Working	
Oil	0	1	0	Jungle, Marsh,Desert, Tundra, Snow or Coast	Offshore Platform or Well	Revealed by Biology	
Uranium	0	1	0	Forests, Jungle, Marsh, Grasslands, Plains, Desert, Tundra, Snow or Hills	Mine	Revealed by Atomic Theory	
Luxury Resor	urces						
Cotton	0	0	2	Grasslands, Plains, Desert	Plantation		
Dyes	0	0	2	Jungle, Forest	Plantation		
Furs	0	0	2	Forest, Tundra	Camp		
Gems	0	0	3	Jungle, Grasslands, Plains, Desert, Tundra, Hills	Mine		
Gold	0	0	2	Grasslands, Plains, Desert, or Hills	Mine		
Incense	0	0	2	Desert or Plains	Plantation		
lvory	0	0	2	Plains	Camp		
Marble	0	0	2	Grasslands, Plains, Desert, Tundra, or Hills	Quarry		
Pearls	0	0	2	Coast	Fishing Boats		
Silk	0	0	2	Forest	Plantation		
Silver	0	0	2	Tundra, Desert, or Hills	Mine		
Spices	0	0	2	Jungle	Plantation		
Sugar	0	0	2	Flood Plains, Marsh	Plantation		
Whales	1	0	1	Coast	Fishing Boats		
Wine	0	0	2	Grasslands, Plains	Plantation		

# **IMPROVEMENTS**

Name	Tile Yields	Improves Resources	Prerequisite Techs	Can be Built on		
Worker Improvements						
Camp	None	Ivory, Furs, Deer	Trapping	Forests, Tundra, Plains, Hills		
Farm	+1 Food	Wheat	Agriculture	Grasslands, Plains, Desert		
Fishing Boats	None	Fish, Whales, Pearls	Sailing	Coast		
Fort	Defensive Bonuses	None	Engineering	Grasslands, Plains, Desert, Tundra, Snow		
Lumber Mill	+1 Production	None	Construction	Forests		
Mine	+1 Production	Iron, Coal, Aluminum, Uranium, Gems, Gold, Silver	Mining	Grasslands, Plains, Desert, Tundra, Jungle, Snow, Hills, Forest, Marsh		
Offshore Platform	None	Oil	Refrigeration	Ocean		
Oil Well	None	Oil	Biology	Jungle, Marsh,Desert, Tundra, Snow		
Pasture	None	Horses, Cattle, Sheep	Animal Husbandry	Grassland, Plains, Desert, Tundra or Hills		
Plantation	None	Bananas, Dyes, Silk, Spices, Sugar, Cotton, Wine, Incense	Calendar	Grasslands, Plains, Desert, Forests, Marsh, Flood Plains, Jungle		
Quarry	None	Marble	Masonry	Grasslands, Plains, Desert, Tundra, or Hills		
Trading Post	+1 Gold	None	Trapping	Grasslands, Plains, Desert, Tundra		
<b>Great People Impro</b>	ovements					
Academy	+6 Science	None	None	Grasslands, Plains, Desert, Tundra, Snow		
Citadel	Defensive Bonuses, 3 damage to adjacent enemy units	None	None	Grasslands, Plains, Desert, Tundra, Snow		
Customs House	+4 Gold	None	None	Grasslands, Plains, Desert, Tundra, Snow		
Landmark	+6 Culture	None	None	Grasslands, Plains, Desert, Tundra, Snow		
Manufactory	ory +4 Production None N		None	Grasslands, Plains, Desert, Tundra, Snow		

## **TECHNOLOGIES**

Name	Cost	Prerequisite Techs	Leads to Techs	Unlocks		
Ancient Era						
Agriculture	20	None	Pottery, Animal Husbandry, Archery, Mining	Farm		
Animal Husbandry	35	Agriculture	Trapping, The Wheel	Horses, Pasture		
Archery	35	Agriculture	Mathematics	Archer		
Bronze Working	55	Mining	Iron Working	Spearman, Hoplite, Immortal, Barracks, Krepost, The Colossus, remove Jungle		
Calendar	70	Pottery	Theology	Stonehenge, Plantation		
Masonry	55	Mining	Construction	Walls, The Pyramids, Quarry, clear a Marsh		
Mining	35	Agriculture	Masonry, Bronze Working	Mines, remove Forest		
Pottery	35	Agriculture	Sailing, Calendar, Writing	Granary		
Sailing	55	Pottery	Optics	Work Boat, Trireme, The Great Lighthouse, Fishing Boats		
The Wheel	55	Animal Husbandry	Horseback Riding, Mathematics	Chariot Archer, War Chariot, War Elephant, Floating Gardens, Water Mill, build a Road		
Trapping	55	Animal Husbandry	Civil Service	Trading Post, Camp		
Writing	55	Pottery	Philosophy	Paper Maker, Library, National College, The Great Library, Open Borders		
Classical Era						
Construction	105	Masonry	Engineering	Colosseum, The Great Wall, Lumbermill		
Horseback Riding	105	The Wheel	Chivalry	Horseman, Companion Cavalry, Stable, Circus		
Iron Working	160	Bronze Working	Metal Casting	Swordsman, Mohawk Warrior, Legion, Armory, Heroic Epic, Iron		
Mathematics	105	The Wheel, Archery	Currency, Engineering	Catapult, Ballista, The Hanging Gardens, Courthouse		
Optics	85	Sailing	Compass	Lighthouse, Embarking		
Philosophy	105	Writing	Theology, Civil Service	Mud Pyramid, Burial Tomb, Temple, National Epic, The Oracle, Research Agreements		
Medieval Era						
Chivalry	485	Civil Service, Horseback Riding, Currency	Acoustics, Banking	Knight, Camel Archer, Naresuan's Elephant, Mandekalu Cavalry, Mughal Fort, Castle, Himeji Castle, Defensive Pact Treaties		
Civil Service	440	Philosophy, Trapping	Chivalry, Education	Pikeman, Landsknecht, Chichen Itza, +1 Food for Farms along fresh water		
Compass	375	Optics	Astronomy	Harbor, +1 Gold for Fishing Boats		
Currency	275	Mathematics	Chivalry	Market, Mint, Bazaar, Machu Picchu		
Education	485	Theology, Civil Service	Astronomy, Acoustics, Banking	Wat, University, Oxford University, Notre Dame, The Porcelain Tower		





Name	Cost	Prerequisite Techs	Leads to Techs	Unlocks
Railroad	2660	Steam Power	Combustion	Arsenal, Railroad
Refrigeration	3100	Electricity	Plastics, Penicillin	Submarine, Offshore Platform
Replaceable Parts	2660	Steam Power	Flight, Combustion	Anti-Tank Gun, Infantry, Foreign Legion, Statue of Liberty
Steam Power	2350	Scientific Theory, Military Science	Electricity, Replaceable Parts, Railroad	Ironclad, Factory, Lumber Mill Production yield increased by 1, faster embarked movement
Telegraph	3100	Electricity	Electronics	Battleship, Military Base, Cristo Redentor
Modern Era				
Advanced Ballistics	6000	Lasers, Nuclear Fission	Nuclear Fusion	Nuclear Missile
Atomic Theory	4700	Combustion	Nuclear Fission	The Manhattan Project, Uranium
Computers	5400	Electronics, Mass Media	Robotics	Nuclear Submarine, Mobile SAM
Ecology	5400	Plastics, Penicillin	Globalization	Solar Plant
Electronics	4700	Telegraph	Computers	Mechanized Infantry
Globalization	6000	Ecology	Particle Physics	United Nations, Sydney Opera House
Lasers	5400	Radar, Combustion	Stealth, Advanced Ballistics	Modern Armor, Jet Fighter
Mass Media	4700	Radio	Computers	Stadium
Nuclear Fission	5400	Atomic Theory	Advanced Ballistics	Atomic Bomb, Nuclear Plant
Penicillin	4700	Refrigeration	Ecology	Medical Lab
Plastics	4700	Refrigeration	Ecology	Research Lab, Hydro Plant
Radar	4700	Radio, Flight	Rocketry, Lasers	Bomber, B17 Bomber, Paratrooper, Pentagon
Robotics	6000	Computers	Particle Physics	Spaceship Factory, SS Booster, Missile Cruiser
Rocketry	5400	Radar	Satellites	Helicopter Gunship, Rocket Artillery, Apollo Program
Satellites	6000	Rocketry	Particle Physics, Nuclear Fusion	SS Cockpit, Guided Missile
Stealth	6000	Lasers	Nuclear Fusion	Stealth Bomber
Future Era				
Future Tech	7000	Nanotechnology, Nuclear Fusion	None	A repeating tech which increases your Score each time its completed
Nanotechnology	6000	Particle Physics	Future Tech	SS Stasis Chamber
Nuclear Fusion	6500	Satellites, Stealth, Advanced Ballistics	Future Tech	Giant Death Robot
Particle Physics	6000	Globalization, Robotics, Satellites	Nanotechnology	SS Engine

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#### Combat Strength 73 Combat 47, 54, 54-64, 55, 56, 57, NDEX Conquering a City 74 58, 59, 60, 61 Acquiring XP Through 63 Construction in Cities 70 Defending 73 Air Combat 59, 119, 119–125 Defending a City 73 City Combat 59, 73, 171 Food and City Growth 77 City Combat Strength 73 Achievements 6 How to Build 67 Combat Bonuses 58 Advisor Council 27 The City Banner 67 Combat Damage 61 Advisors 7, 19 Unemployed Citizens 69, 73 Combat Strength 45, 68, 208 Advisor Council 27 Combat Strength Bonus 151, Units in Cities 60, 70

Achievements 6
Advisor Council 27
Advisors 7, 19
Advisor Council 27
Contacting An Advisor 19
Economic Advisor 19, 201
Foreign Advisor 19
Military Advisor 19, 201
Science Advisor 19, 202
Turning Off the Advisors 19
Air combat 54
Attacking 54, 58, 60, 63, 73, 214

## B

Barbarians 14, 54, 55, 64, 65, 66 Barbarian Encampments 65 Barbarian Units 65 Bonus Against 94 **Encampments** 65 The End Of 66 The End of Barbarians 66 War Against 54 XP Limitations 63 Bonuses Combat Bonuses 58 Terrain Bonuses 58 Bonus resources 36 Buildings 75 Building List 162 Building Maintenance 75 Building Prerequisites 75 How to Construct 75 National Wonders List 160 Specialists and Buildings 75

## C

Cities 67–74
Captured Cities 76
City Banner 67, 68
City Combat 59, 73, 171
City Growth 77, 79, 217
City List Panel 24
City Screen 24, 26, 67, 68, 69, 70, 73, 75, 79, 80, 105

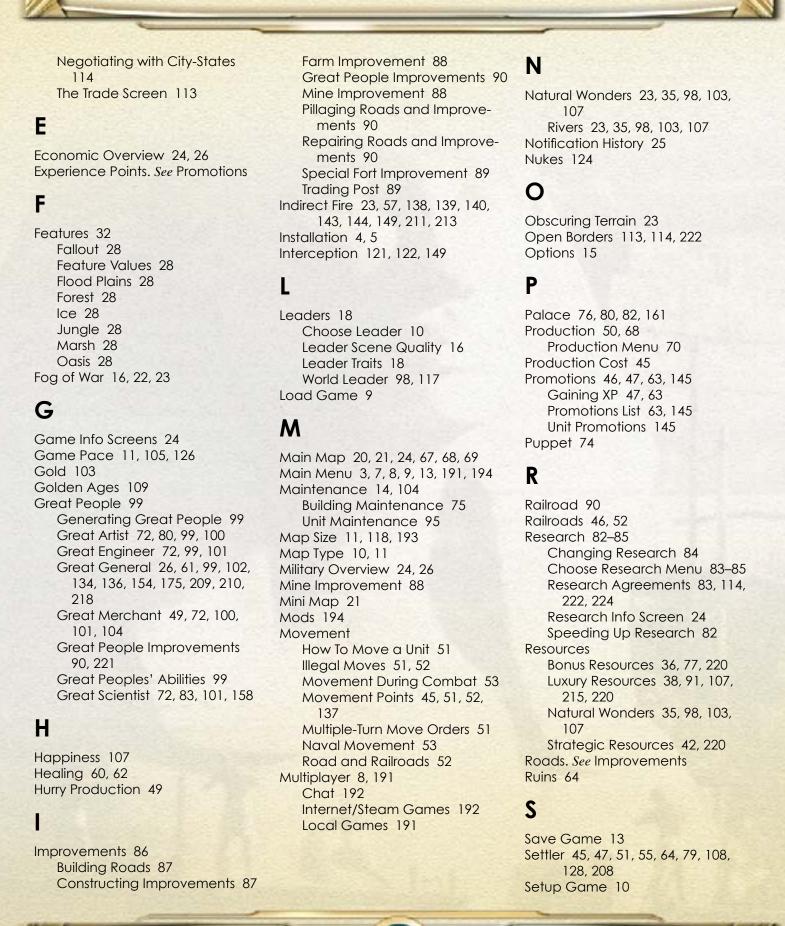
Unique Buildings 18

Where to Build 67 Working the Land 71 Citizens 67, 69, 72 Unemployed 69, 73 Working the Land 71,77 City-States 96–98 City-State Influence 96 City-State Missions 98 City-States and Victory 115 Communicating with City-States 96 Diplomatic Victory 98, 117, 159, Negotiating with City-States 114 Types of City-States 96 Civilizations 18 Arabia 173 Aztec 174 China 175 Civilization List 173 Diplomacy with 112 Egypt 176 England 177 France 178 Germany 179 Greece 180 India 181 Iroquois 182 Japan 183 Ottoman Empire 184 Persia 185 Rome 186 Russia 187 Siam 188 Songhai 189 United States of America 190 Who Votes? 117 Civilization V Web Site 12 Civilopedia 3, 17, 18, 21, 46, 57, 63, 72, 75, 83, 110

156, 163, 210 Combat Units 47 Combat Units in Cities 70 Declaring War 54, 114 Ending a War 54 Great General Combat Bonus Melee Combat 55, 56, 60 Movement During 53 Naval Combat 59 Ranged Combat 47, 55, 57, 58, 59, 60, 208 Ranged Combat Strength 208 Siege Weapons 61 Tutorial 7 Unit Combat Statistics 55 Workers in Combat 86 Zones of Control 53 Credits 196 Culture 64,80 Cultural Victory 81, 93, 95, 219 Culture Bomb 50 Getting Culture 80

## D

Defeat 115 How to Lose 115 Defending Defending a City 73 Defending Unit 56, 58 XP for 63 Demographics 25 Difficulty Level 8, 9, 11, 14, 64, 93, 100, 107, 118 Diplomacy 7, 25, 54, 96, 97, 104, 105, 111, 112, 114 Declaring War 54, 114 Diplomacy Panel 118 Diplomatic Overview 26 Initiating Diplomacy 111 Negotiating Peace 114





Siege Weapons 61
Simultaneous Turns Games 17
Single Player 8
Social Policies 78, 80, 83, 93, 93–95, 95, 107
Acquiring Social Policies 80, 93
Cultural Victory 81, 93, 95, 219
Social Policies Screen 15, 21
Social Policy Branches 94, 219
Steam 5, 6, 8, 140, 164, 178, 191, 192, 195, 212, 217, 223, 224
Strategic View 16, 21
System Requirements 4

### Т

Technology 82

Technology Tree 84, 85
Technology Victory 85
Where Do Beakers Come From?
82
Terrain 28
Terrain Types 28
The End of Time 117
Three States of Knowledge 22
Turn-Based Games 17
Turn Structure 17
Tutorials 7, 195

### U

Units

Air Unit List 122 Archery Unit List 126 Armored Unit List 127 Civilian Unit List 128 Combat Units 47, 70 Constructing Units 45 Defending Unit 56, 58 Gunpowder Unit List 129 Melee Unit List 132 Mounted Unit List 135 National Units 46 Naval Unit List 138 Non-Combat Units 47, 70 Project Unit List 142 Recon Unit List 143 Unique Units 18 Unit Action List 48 Unit Characteristics 45 Unit Combat 46, 55 Unit Combat Statistics 55

Unit List 126 Unit Maintenance 95 Unit Movement 46 Unit Promotions 145 Unit Special Abilities 46

## Z

Zones of Control 53

### V

Victory 115
City-States and Victory 115
Cultural Victory 81, 93, 95, 219
Diplomatic Victory 98, 117, 159, 219
How to Win 116
Technology Victory 85
Victory Progress Screen 25
Your Score 118

### W

War

Against Barbarians 54 Declaring War 54, 114 Ending a War 54 Negotiating Peace 114 Wonders 78, 80, 83, 99, 101, 103, 107, 110, 176 Capturing 110 Constructing 71 Effects of Wonders 110, 118 National Wonders 76, 110 National Wonders List 160 Natural Wonders 23, 35, 98, 107 Purchasing 105 Wonders Chart 218 Wonders List 154 Wonders Panel 69 World Wonders 76, 110 World Wonders List 154 Work Boat 47, 55, 59, 90, 92, 128, 208 Workers 86 Creating Workers 86 Work Boats 47, 55, 59, 92 Worker Action List 90

## X

XP. See Promotions

Workers in Combat 86

