Medieval Millennium Gameplay

I. Difficulty Levels

Medieval Millennium supports seven difficulty levels. Baron (the easiest), Earl, and Marquess all apply disadvantages to AI nations to provide an easier game for the human player. The middle level of Duke is a truly level playing field, with no advantages or disadvantages given to either AI or human nations. Prince and King are progressively more difficult, with various advantages given to AI nations. The most difficult level, Emperor, is a special addition to Medieval Millennium — a seventh level of extreme difficulty that is not available in the base game. Before you attempt to play a game at this level, please see the separate file entitled "Readme-emperor.txt" within the Documentation subdirectory.

Many of the Lua events written for Medieval Millennium make use of probabilities or thresholds that are also adjusted dynamically based on the difficulty level of your game. This might lead the higher difficulty levels to be more challenging than you expect. It is highly recommended that you play your first game at one of the easier levels (Baron, Earl, or Marquess) and then move up gradually, one difficulty level at a time, if you win.

II. Victory Conditions and Scoring

A game of Medieval Millennium lasts a maximum of 500 turns, at two years per turn. The game ends immediately if your nation has no cities remaining (and no Peasant or similar unit that would allow you to found a new city), or if you conquer all AI nations such that *they* have no cities or Peasants remaining, or if any nation builds an Atlantic Fleet that successfully completes a voyage to the New World.

The concept of the Atlantic Fleet replaces that of the Spaceship in the base game. In Medieval Millennium, in order to win a peaceful (non-conquest) victory, you must be the first nation to complete an Atlantic Fleet that is able to sail into the west and return with news of a new continent. The discovery of the New World will bring the medieval era to a close and begin a new age of history.

If you wish, you may select the "Old World Only (no Atlantic Fleet allowed)" option in the Select Custom Features dialog as you begin a new game, which eliminates the possibility of any nation building an Atlantic Fleet and leaves victory by conquest as the only option.

Scoring is similar to the base game, but different scoring elements (number of citizens, number of wonders, reward for a successful Fleet landing, etc.) have different values.

III. Research Eras and Rate

The technology advances in Medieval Millennium are divided into four eras, and the icon for each advance contains a Roman numeral (I through IV) to indicate the era to which it belongs. Each nation must acquire a clear majority of the possible advances in one era in order to unlock the next one and begin researching any advances there. The number of advances in each era, as well as the percentage which must be known in order to advance to the next one, varies for every era. As a result of this configuration, you may not be able to immediately research an advance for which you have both prerequisites, if it belongs to a later era that you have not yet unlocked.

The pace at which advances are acquired throughout a game is also adjusted dynamically as the game progresses, by increasing or decreasing the global setting for research cost. Initially, each advance costs 150% of normal, reflecting the fact that scholarship was at low levels early in the medieval period. The cost of each advance will probably decline as the

game progresses, but the extent of this decline (and the potential for the cost to increase again later) will vary in every game. Overall, the research cost is calculated so that one nation (which may be AI-controlled or led by the human player) will be able to finish researching all advances in the late 1400s. In other words, no matter how successful your nation is at generating research, it will be impossible to acquire all techs or complete an Atlantic Fleet by A.D. 1200; the game will simply keep increasing the cost of each technology to maintain a realistic pace. However, since this adjustment is a global one affecting all nations, it is still possible for one nation to acquire many more advances than any other nation and build a large technology lead. The pace is always established based on the nation with the most advances known.

IV. Barbarians

When you begin a new game of Medieval Millennium, you will be asked to choose the level of barbarian activity. This selection dialog excludes the traditional option of "Villages Only" and allows you to select one of four potential options: "Roving Bands", "Restless Tribes", "Raging Hordes", or a new extreme level known as "Barbarian Wrath".

In all games of Test of Time, the attack strength of barbarian units against the human player is directly affected by the difficulty level (not the barbarian activity level) of that game. In Medieval Millennium, the values are: Baron = 25%, Earl = 50%, Marquess = 75%, Duke = 100%, Prince = 125%, King = 150%, and Emperor = 175%. Additional special-case adjustments to battles involving barbarian units have been documented in various threads on the civfanatics.com forums.

As in the base game, there will be a constant stream of "background" barbarians, on both land and sea. These generally consist of unit types you can also build, such as Horseman, Archer, and Spearman. As the game progresses, barbarian unit types will gradually improve to present a consistent challenge. Besides these barbarians, though, you will also face specific barbarian invasions at timed points within the game.

a. Barbarian Invasions

Barbarian invasions are specific waves of barbarian activity that roughly correspond to major invasions faced by Western Europe during the medieval period. These often consist of special "barbarian-only" units that can never be built by any human or AI nation, such as a Viking Raider or Mongol Cavalry. The first such invasion is that of the Berbers, who historically invaded and held much of the Iberian Peninsula for centuries. Later, you will face Arab Infantry and Cavalry in the era of the Crusades. (This is an exception to the rule that these are forces who invaded Europe; it's actually the reverse, in that European nations historically invaded Arab lands. They are included in Medieval Millennium in the role of a consistent opponent faced by European forces from *outside* the geographical region of the included nations.)

Three barbarian invasions are linked to special game behavior. When you defeat a Berber, Viking, or Mongol unit in battle for the first time, you will receive a corresponding advance for free: Berber Invasion, Viking Invasion, or Mongol Invasion. These represent significant milestones in the technology tree and will serve to unlock new research possibilities. Thus, although barbarians represent a real risk to the success of your nation, you shouldn't necessarily seek to avoid them at all costs.

If barbarian invaders are left to roam around a given area of the map with little interference, they will eventually found their own cities. These will continue to churn out new invading units and menace that entire region. However, a determined counterattack may be able to dislodge them and seize such a city, allowing you to incorporate it into your kingdom.

b. Barbarian Rewards

As in the base game, a barbarian Warlord is a diplomat-type unit that provides a reward of gold when one is defeated. The amount of the reward depends on the barbarian activity level you selected for that game. In addition, whenever you

defeat any other barbarian unit in battle and that unit was the last remaining defender of that tile, you receive a small reward based on the difficulty level of the game overall.

V. Plague and Black Death

Two major plagues devastated the population of Europe during this time period, and each was followed by centuries during which the plague continued to recur but at lower levels and with less of a devastating effect. Known today as the Plague of Justinian and the Black Death, these two major plague events play a significant role in Medieval Millennium. The first plague strikes quite early and lasts for approximately the first quarter of the game. The second and more deadly plague, the Black Death, strikes in the fourteenth century.

When a plague strikes a city, there are four possible effects. First, the accumulated Health in the city will be reduced, and in the case of a severe plague, the city size will likely be reduced as well. Second, units that are located in or near the city may be killed. Third, a tile within the city radius will become contaminated with plague (replacing the base game concept of pollution), which will substantially reduce its productivity. This plague contamination can be cleansed from the tile by Peasants, Serfs, or Yeomen; if not, it will disappear automatically after 40 years. Fourth, in the case of a severe plague only, a special Plague barbarian unit will appear on that contaminated tile. This unit will not attack you, nor can you attack it, and it will disappear automatically after one turn. However, for that one turn, the presence of the unit prevents the city from working the tile at all, and prevents military units from moving through the area (due to "zone of control" rules).

Two city improvements, the Hospital and Sewer Conduits, reduce the risk and severity of plague. These are not available early in the game, but you will want to build them in all major cities, if you can afford to do so, prior to the onslaught of the Black Death. Please review the documentation regarding these improvements, either in the Civilopedia or in the PDF Guide to Improvements.

VI. Rush Buying

Medieval Millennium utilizes the "No Incremental Rush Buy" feature of TOTPP. Once you utilize the "Buy" button to purchase all of the remaining Materials necessary to complete production of any item, the "Change" button is disabled to prevent you from selecting a different item.

VII. [Backspace] Key

During your turn, the [Backspace] key provides context-sensitive help information about the active unit and the tile on which it is currently located. If no unit is currently active, then help is displayed for the tile only (unless the tile contains exactly one unit, in which case its information is also shown).

One key piece of information displayed when you press this key relates to the concept of Stack Attrition. Each type of terrain can only support a fixed number of human (non-mechanical) military units, and the backspace key will reveal the exact limit on a particular tile, as well as the number of units that it is currently supporting. For more details, please see the documentation regarding Stack Attrition within the Civilopedia or in the PDF Guide to Units.

VIII. [Tab] Key

During your turn, the [Tab] key will display an event-driven menu of additional game options. Most of these provide informational displays, often summarizing or organizing details in a more efficient way. These may be very helpful in formulating a strategy or optimizing the efficiency of your nation. The final two options go a step further and allow you to take specific administrative actions that are not available via any other means.

- **Display tile usage levels for your cities**: This allows you to monitor the land in your nation as it relates to the concept of terrain depletion. Please see the entry for "Depleting and Reverting Terrain" in the Civilopedia or in the PDF Guide to Terrain.
- **Display tiles near your cities with plague pollution**: This allows you to monitor the presence of plague pollution within your nation, and may help you formulate a strategy regarding the value of cleaning up plague tiles with peasant-type units.
- **Display your chances of producing new veteran units**: This summarizes the effects of city improvements, wonders of the world, and previous unit construction activity within each city. You have the ability to view the information either by city (for all buildable unit types) or by unit type (for all cities). This may help you formulate a strategy regarding which unit types to build in which locations.
- **Display available improvements not built yet**: This allows you to list all the cities which do <u>not</u> contain a particular city improvement, as a replacement for cycling through each city screen and examining the list of improvements there. It may be helpful in ensuring that your city development strategy is being executed correctly everywhere in your realm.
- **Display technology trading possibilities**: This acts as an extra benefit of embassies that you establish with other nations. For every foreign nation with whom you have an embassy, you are provided with two lists of advances: those that they possess but you do not, and those that you possess that they do not. By comparing these lists, you can determine if you consider it worthwhile to initiate a diplomatic meeting with that nation for the purpose of proposing an exchange of knowledge.
- **Display power ratings for all (contacted) nations**: Please see the entry for "Power Ratings" in the Civilopedia or in the next section of this guide. This menu option allows you to view the numerical value of each nation's rating, providing greater detail than is visible through the diplomacy screens.
- **Close one or more Basilicas**: City improvements that are considered church property cannot be sold by the order of the king or for the benefit of your treasury. Once the citizens of a city have access to a worship facility, the church will not allow this to be taken away. However, once a city contains a Cathedral (or the benefit of one via a wonder), then a smaller Basilica is no longer considered to be a necessity. You may still wish to keep it operating in order to receive the benefit it provides, but if you conclude that it is truly no longer needed then you can elect to close it. This removes it from the city without providing any immediate benefit to your treasury, but it means you will no longer be required to pay the upkeep for it each turn. Closing unnecessary Basilicas can therefore help to stabilize your economy in trying times.
- **Sell one or more Specialist buildings**: The entry for Specialists in the Civilopedia, or in the PDF Guide to Improvements, contains details about the various levels of city specialists and how they are constructed. Within your cities, the city specialist units may not be disbanded; furthermore, although the specialist improvements of Wood/Stone Craftsmen and Foundry can be sold, this will not restore any specialists that they replaced. Although the Health and Materials that specialists generate are extremely valuable, in times of economic hardship you may find that the upkeep costs are simply not sustainable. This menu option allows you to sell or downgrade those specialists that charge upkeep to your treasury every turn. You are advised to use this option sparingly and only when truly necessary!

IX. Power Ratings

Medieval Millennium attempts to replicate the power rating calculations performed by the game engine, using formulas gleaned from various threads on the Civfanatics.com forums. (Although the results may not be 100% identical, they are quite similar and generally "close enough" for most purposes.) You can view the current power rating calculations for all contacted nations by selecting one of the options within the [Tab] menu.