Origins: How We Became Human The Age of Reason Expansion

The Age of Reason expansion adds 55 new cards to *Origins: How We Became Human*. These cards allow players to advance their *Origins* civilizations into the modern age, the Age of Reason.

This booklet contains the rules related to these new cards, as well as designer's notes, a new scenario, errata, optional rules, and additional strategy notes.

The Age of Reason (Feb 19, 2008)

Population Actions
Four additional Population actions are available in Era IV and later. These are:

8. Free Trade (Era V). This action is exactly like the "Trade" Population action, except that the number of Elders gained can be up to three (as agreed upon by the two traders) instead of one. The number of Elders gained in a Free Trade action is NOT limited by the number of metropolises.

9. Tourism (Era V). This action allows the player to perform an acculturation on another player who has fewer *total* unsuppressed public cards. *[Tourists are often interested in antiquities, so it is the number of cards rather than rank that is counted to make tourist dollars possible.]*

10. Elections (Era V). This action allows the player to add two to his strength during sieges (attack or defense). Even if a player has more than one active "elections", two is the maximum strength addition. *[During Era IV, the age of ideologies, expansion by conquest is ephemeral (given the timespan of 1000 year turns) if the populace remains ideologically unconvinced. Sieges nowadays are not so much battles as they are a "coup by public opinion".]*

11. Terrorism (Era V): With an Elder expenditure, perform a Barbarian raid.

*Note: **Free Trade, Tourism, Elections,** and **Terrorism** are facilitated actions on certain Era IV cards.*

Additional Rules
The following rules are only applicable to Era IV and later:

Ideological Suppression. If a player obtains by auction a Public card that indicates his identity letter within a black square, this card is removed from the game (i.e.; not placed in the discard pile) without its effects being applied.

Utopia. This activity, indicated by a circular icon found on certain Era IV Idea cards, allows the player to subtract from the Stability Roll on the turn played. *[This destabilization may be useful for the player to end the game by failing the final Stability Roll and entering Era V.]*

Discoveries. This activity, indicated by a diamond icon found on certain Era IV idea cards, allows the player to draw new cards into one's hand off of any Era Deck he has entered. These cards may be played immediately. *[This icon represents a fundamental science or math discovery, which generates new ideas.]*

Era IV Scoring. Producer elders count for double points (for those players using elders for victory conditions). This applies only for games that enter Era IV (i.e.; the "full" game and the Age of Faith scenario). Normal scoring applies to games ending at the end of Era III.

Short Game: Age of Faith
This shorter game starts in 1200 BC, and includes Era III & IV only. All players start with Infrastructure units on Footprint stage three, and stage two in the other four infrastructures. Each player starts with an Era unit in the Era III Dark Age. Each player starts with their Innovation and Population tracks full, except for those marked with a red star. Each player starts with three or four Map Units, placed as follows:

A (Olmec/Aspero): Metropolises on Sunflower and Peanut, Migrant unit in Guadalajara (see below).
C (Egypt): Metropolis on Finger Millet, Migrant unit on "Cro-Magnon", one producer elder.
H (Lapita): Metropolis on Kangaroo, Migrant units on "Hobbit" and Hawaii, one producer elder.
N (Sumeria): Metropolis on Wheat, Migrant unit on "Neanderthal", one producer elder.
P (Harappan/Xia): Metropolis on Rice, Migrant units on "Peking Man" and India (see below), one producer elder.

Note: Guadalajara is the land spot directly below Maize, Beans; India is the land spot directly below Auroch Cow.

Before the game begins, roll for one climate change. Then start game per step 9 on page 3.

Note: For a two player game, the recommended Demographies are C vs. P; for a three player game, C vs. N vs. P; and for a four player game, C vs. P vs. A vs. H.

Designer's Notes

The Role of Government: *Origins* reflects my Objectivist philosophy. (Objectivism is the father of the Libertarian party, among other things.) This leads to huge differences compared to other Civilization-style games, all of which place players into the role of the government. The players act as paternalistic bureaucrats. They keep the masses happy, by building coliseums, public artworks, welfare, and the like. They keep the masses smart, by funding public libraries, Manhattan projects, and the like. They gain notoriety for themselves, by building wonders, sending men to the moon, and the like. In *Origins*, players take the roles of the populace. Their job is to keep the governments under control. The only role of such governments is to keep the people free: free to become smart, or happy, or whatever they wish. Freedom is the basic human value: freedom of speech, religion, business, travel, and trade. This is why most of the Era IV cards are businesses, and other icons of individualism.

The Liberation of Women: *Origins* is unique in including women's values: demography, love, pair bonding, fidelity, monogamy, child raising. The ability of women to control their "barefoot but pregnant" status, bearing fewer but higher quality babies, is indicated by fecundity decrease icons. Era IV introduces new ways for women to regulate their own fecundity, such as birth control and abortion, and new mechanisms for providing more child care, such as longer lived grandparent nannies, and alimony laws. Societies with advanced maternal self-regulation, as mentioned in the *Origins* background material, have far less delinquency rates and crime. The introduction of women into professional careers increases the number of elder-specialists, at a cost of amount of time available for child care. For this reason, women's liberation (on the Auto Manufacturers card) marries fecundity increases with elder gains.

Monument-building: I include monuments, often called wonders in other games, only during Era II. According to Jaynesian theory, monument-building had a critical purpose during the Bicameral Era, to act as a channel for bicameral humans to remember the admonishments of dead authority figures. The building of monuments by governments has no legitimate purpose in the modern era.

Globalization and Cold War. Globalization describes periods where persons are free to transact with each other with little interference from outside authorities (such as pirates or governments). Governments place few limits on imports, exports, immigration and exchanges of information. This is the default state of game play; departures from free markets, most notably tariffs, government regulations, fiat money, and other so-called Keynesian economics, are represented as Elder Losses. Globalization started during the age of exploration, and was interrupted with the Cold War era, a nationalist and ideological struggle between capitalist nations who saw freedom as the core value, and communist and national socialist nations who saw equality or racial purity as the core values. After the fall of the Berlin Wall in 1989, and the collapse of communist Russia, globalization has returned and nations advocating central planning are generally sinking into poverty, while those nations that have embraced capitalism have increasing standards of living for all their citizens. Reference: Yergin, Daniel and Stanislaw, Joseph. 1999; *The Commanding Heights: the Battle Between Government & the Marketplace That Is Remaking the Modern World*. Touchstone Books.)

The Ills of Society. These include the big four addictions: sugar, alcohol, caffeine, and nicotine, plus the associated rather modern ailments of obesity and depression. Crime and pollution also are of lesser, but locally significant, importance. These ills sap the will and lifespans of society's most productive specialists, and thus are represented in the game as Elder Losses. The players most susceptible to these losses are those who rush into a new era in advance of the technology gains to support this lifestyle.

Note that these modern problems are problems of plenty rather than scarcity, and indicate the stagnation of an underpopulated world rather than the starvation of an overpopulated world. The dictums of Malthus are appropriate only for creatures that live off of what nature provides, not for creatures like humans who create their own

resources. It is for this reason that the Malthusian models that I used for my game *American Megafauna* (a game of Darwinism during the Paleozoic) were not used in *Origins*.

Stock Market. During Era IV, the Elder Pool can be best thought of as the stock market. Gains and losses therein can be thought of as market fluctuations, and a market with more Elders than metropolises is one ripe for a crash, perhaps from an opponent's globalization actions. The productive efforts of a society's skilled specialists is the ultimate source of its values, the source of its GNP. This source of value has not changed since the very origins of division of labor back in Era I.

Modern Brains. During Era I, the neocortex of human brains had localized areas of function, including lateralization (different roles for the two hemispheres). By Era III, what is physically almost the same brain is now a homogenous distributed neural network, with great cross-functionality and no localized functional areas (with the notorious exception of Broca's and Wernicke's areas). The hardware is unchanged, but the software is greatly upgraded. I theorize that that upgrade, the upgrade of storing memories in conceptual and verbal terms, occurred in two grand cascading events, both associated with the development of language. The first (first concepts) ended Era I, and the second (first consciousness) ended Era II. This phylogeny is recapitulated today. Each human is born with an Era I brain, and must go through these two events at a young age while learning language from their parents.

Origins Errata (as of Feb 10, 2008)

1. Add two final sentences to the "Auction" paragraph on page 6: *A player who wins a public card with an Elder Loss icon must suffer an Elder Loss. This effect is a one-time event, and does not reoccur if this card is suppressed and later reset.*

2. The first sentence of the final note of Page 10 should add the phrase "of his choice". The second sentence specifies die roll results that contradict the table printed on the map. The two sentences should read: *In the case of a modified roll of 6 or more on the Animal Husbandry table, the player (and a Neighbor [of his choice]) are stricken with a disease of Bound 1, per page 6. If a modified roll of 2 or 3 is achieved, the domestication attempt fails because the animal is too ferocious.*

3. Clarification: If a player gains or resets an

information card (see page 7), his hand size bonus occurs instantly.

4. Clarification: If the identity/ideology of a player changes (via a revolution), then the player's new identifier letter is effective for all purposes (including bidding tiebreakers).

5. Add a final sentence to "Slave Revolt/Genocide" on page 15: If a slaver society frees more than one slave society when he lapses into Chaos, the slaver player decides which slave color each of the lost slaver units are replaced by.

6. The diagram associated with the Migration example on page 12 did not include the movement paths. The corrected diagram is shown below:
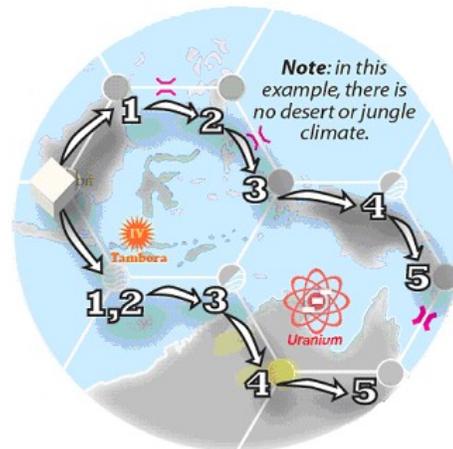
Origins Optional Rules (as of Feb 19, 2008)

1. Voluntary Public Card Introduction. (recommended) Remove the rule (4th sentence of Page 7) that forces a player to play his Public cards immediately. Instead, a player may hold Public cards in his hand in the same fashion as Idea cards. If the Public card has a catastrophe, it must be announced and enacted during the Catastrophe phase during the turn drawn, but the Public card need not be revealed. If using this rule, replace the sentence on page 7, "If nobody bids on it, it is awarded to the current player." with the sentence, "If nobody bids on a Public card, then it is discarded and removed from the game."

2. New Population Actions. (recommended)
Livestock Raid (Era II and later): If a Neighbor is at Energy stage one or higher, advance to Energy stage one. Alternatively, if a Neighbor is at Footprint stage two or higher, advance to Footprint

stage two.

Mining (Era III and later): If a player has a Metropolis on a resource hex, and expends an Elder, he may roll on the Resource Extraction Table adding one extra to the die roll.
[Underground mining dates to Era II. A shaft dated at 40 kya was used to extract ochre for body paint in the Ngwenya Mountains of Swaziland.]

3. Counterespionage. (recommended) Allow the victim of a Cold War or Espionage action to block it by performing an Elder Expenditure.

4. No Final Chaos. (recommended) On page 18, replace the first sentence with: *"The game ends the instant the first player enters the Era IV Dark Age (or the Dark Age that follows Era IV if playing the full game using the expansion deck.) " [This rule removes the disadvantage that the player ending the game suffers due to going into chaos.]*

5. Swine Flu. Referring to the "6+" entry of the Animal Husbandry table, the Bound of the Disease, instead of being "1", is instead considered to be whatever Era the current player is in.

6. The Toba Event. (This rule makes the cow hex a bit less attractive as a resource.) If the Yellowstone volcano card is drawn, instead of a volcano in America consider it Mount Toba in Sumatra instead which blows its top. This event removes all units in the Asian Elephant and Auroch Cow hexes (i.e.; they are lost), and forces one climate change roll. *[The Toba explosion, by far the most powerful in the last 100,000 years, caused a volcanic winter worldwide about 72 kya, in which much of the life on Earth perished. Humanity itself dwindled to perhaps just a few tens of thousands of persons, and this event isolated Cro-Magnon and Peking Man in Indochina from the rest of humanity (at the time spread thinly along the southern coasts from Africa to China). Because of the wind direction (the eruption occurred during the summer monsoons), six meters of ashfall buried every living thing in India.]*

7. Domestication in Uninhabitable Hexes. This rule modifies the Domestication rule (1st sentence of page 10) to allow a Domestication attempt in a hex that is currently uninhabitable. If successful, the player gains the effects of domestication, except a Metropolis is not created.
***Exampl*e:** *Player A has a migratory unit in east*

Alaska during an Ice Age. He plays a card with the flame icon, allowing him to make a Resource Extraction roll for uranium. If successful, he advances his energy one step.
Note: Energy stage 2 makes desert sites habitable through the "Wells" technology; see mapboard. If this technology is attained by domesticating in a desert hex (for instance, domesticating biofuel in Baja California), the site is instantly habitable and the player is allowed to establish a metropolis at this site.

Additional Strategy Notes and Tips

These notes and tips build upon the information presented in the *Origins* rulebook.

General Notes. The trick to playing Origins is to maintain a healthy demography, with low birth rates and more young adults than children. As I say in the player's guide in the rules, one should avoid the demographies of modern African nations like Chad, where the median age is just 14, fecundity is very high but so is infant mortality, and stability is sub-marginal.

Often in Origins, one has a choice between "masculine" values (territorial expansion, aggression, technology, infrastructure) vs. "feminine" values (pair bonding and marriage, stability, education, child care). The latter actions (represented by fecundity decreases) must be played periodically. Resist the temptation to increase one's maritime skills, etc. and instead play the right side of the card, if one is at less than 2 innovation actions. During our playtests, players following this guideline never suffered from turns in which he could do nothing.

The percentage of idea cards in Era I with fecundity decreases is 69%; in Era II it is 82%. In Eras III and IV it is even higher, with doubles and triples possible. Whether by imitation or novel behavior, it is not difficult to maintain a healthy and stable demography through the use of fecundity decreases.

Except during pandemics, one can always avoid risking chaos by migrating rather than expanding population. There are times in the game one wants to fall into chaos, because often only through chaos can progress be made. In these instances, one should save cards with fecundity decreases on it, to keep the chaos from going into "deep chaos". An example of this is in the extended example of play in the rules.

Infrastructure Notes

- **Energy.** As mentioned in the *Origins* rulebook, the domestication of animals is the *only* method available to advance to Energy stage one. Therefore, all players should make animal domestication their highest priority. However, if you are using the optional "Livestock Raid" rule and your neighbor(s) have achieved Energy stage one, another

method is to advance to Era II and steal it from them.

After reaching Era III, a player must get Energy stage two to advance to Era IV (and end the game). One method of advancing to Energy stage two is possible through the extraction of biofuels. Biofuel is only available in one location in the Old World (the Straits of Gibraltar) but this is a "-" resource and requires a roll of 6 for success. The New World contains three biofuel locations, Mexico, Chile, and Hawaii). These locations cause no modification and thus successful extraction occurs on a roll of 5+. The catch, of course, is that you have to migrate there. If you have Maritime stage two then any of these locations shouldn't present a problem. Otherwise, you may want to trust to climate changes, though that's a less dependable method.

Oil and Uranium extraction will almost never occur in Era III, so carefully weigh using an action to extract these. Energy stage three or greater and Metallurgy stage four and greater are generally best left for Era IV.

Once you reach Energy stage three, you can think about ending the game rather than pushing on to Energy stage four or five. Then again, nuclear weapons can add an interesting twist to diplomatic relations…

- **Footprint.** Domestication of animals and plants is the only method to achieve Footprint stage two. Without Energy stage one, you cannot get to Footprint stage three, domesticate resources, or use the certain Era II cards.

  After obtaining Energy stage one and Footprint stage two, players should make a plant domestication attempt; a roll of 5+ leads to Footprint stage three.

- **Metallurgy.** To obtain Metallurgy Stage one or two, attempt an animal domestication (this requires a roll of 1 or less). Depending on the climate, zebras and horses give the best chance due to their -2 modifier. Metallurgy stage one can also be obtained from Era I cards. If the players stay away from war, Metallurgy is not essential. It should be possible to advance to Era II even if you do not have Metallurgy stage one.

An important "Great Wall" in Era IV is Metallurgy stage four, with which one can get Oil or Uranium easily. Metallurgy is not essential for ending the game, but Energy stage three *is* essential.

- **Maritime.** Early advances in Maritime infrastructure allow your civilization to move to map areas that are otherwise unreachable, such as moving via straits and open ocean. Maritime stage three and higher provide added movement and in some cases, combat capability. Maritime stage three, for example, allows Map Units to end their turn at sea – this is useful for conducting sieges. Maritime stage five allows a player to conduct direct attacks against another player's Maritime Infrastructure. Considering the time scale of this game, this gives new meaning to being "bombed back to the Stone Age."

  Note that all Maritime advances are obtained via the play of Idea cards, so don't forget the Ransack/Education Innovation actions.

- **Immunology.** As opposed to the Maritime Infrastructure, which allows players to move to unreachable parts of the map, higher Immunology stages allow players to move Map Units into formerly *uninhabitable* areas. Tundra spots, for example, become habitable at Immunology stage two. Immunology stage five makes jungle sites habitable; note the difference between this and Metallurgy stage two, which allows Map Units to enter jungle *spots*.

  Advances in the Immunology Infrastructure depend upon card play, being "infected" (chosen) by neighboring players who are themselves affected, and animal domestication attempts that pass diseases along to humans (rolls of 6+ during animal domestication attempts). Until you are immune to a disease your civilization will suffer, but the long term benefits generally more than outweigh these effects.

Era Progress. If a player has Energy stage one, he should advance to Era II and even Era III as soon as possible, as the Era III deck contains many advantageous cards. Always advance to the Golden Age of Era II rapidly, so as to get into Era III if Chaos should strike.

Don't advance to Era III until you have a couple of

Elders, metropolises, and Public cards, plus Metallurgy stage two (Bronze Age).

War and Slavery. In general, and especially early in the game, war is counterproductive and is not a good method to use to advance your civilization. War requires diverting your civilization's energies into attacking or defending instead of advancing.

Also, increasing the number of Migrant Units in play (which are required to fight the war) can leave your society vulnerable to chaos. Meanwhile, the non-warring players can continue to advance since they do not have to divert resources into prosecuting a war.

Enslaving other players also has little merit. It does not help you achieve victory, and may actually help the enslaved player. One exception where enslaving another player can be useful is if you need a Footprint boost.

Stability. Watch your population growth, as advancement requires a stable society. Unless you are gearing up for war, you should need only one or two Migratory unit(s) on the board. Of course, if you are intentionally trying to destabilize your society in order to advance to the next era, then feel free to expand your population.

Victory. After a player achieves Energy stage two (short game) or three (full game), the goal (and that player's victory) will be in sight. That player should advance to the current Era's Golden Age, draw as many Era III cards as possible, and expand his population in order to receive maximum Victory Points (VPs).

The other players are not, of course, sitting idly by while this happens. Once a player crosses the Energy stage two / three boundary, there are several options. These include attacking the Energy stage two/three player (not always recommended), drawing as many cards as possible, and/or building more metropolises to allow for more Elders (and thus more VPs).

Frequently Asked Questions

Q: Do you need to clear both language areas of your brain to satisfy a language prerequisite?

A: No, one area is enough.

Q: What prevents an Archaic Homo Sapiens from enslaving the Cro-Magnon on his first turn?

A: Nothing prevents Archaic Homo Sapiens from enslaving either Cro-Magnon or Neanderthal on the first turn. It seems best, however, for him to instead move east to India and the cow resource. Since the early strategy is to domesticate animals, enslaving others is not very productive, and it may help the player who has been enslaved. If and when as a slaver you domesticate an animal, your slaves gain this advantage as well. The enslaved player can concentrate on improving his demography and innovation, and leave the hard work of domestication to his masters. Another disadvantage to enslaving immediately is that the migrant loss hurts your innovation.

Q: Are Stability rolls required in Era I? You are not yet on to the flipped brain card so you don't have dark ages and golden ages.

A: Stability Rolls do apply in all Eras, including Era I.

Q: How soon should you move to Era II? I believe we moved too quickly and didn't have the resources to fare well there. We had a lot of "nothing" turns while we waited to cycle through some cards that finally gave us something we could do. (This was also somewhat true in Era I but was even more agonizing in Era II.)

A: According to the strategy guide (section 4.0): "Don't advance to Era II until you have an Elder and a metropolis, plus a Footprint of stage 2." Era II (the bicameral age) was mankind's least stable period, and Era II is the toughest era to play in the game.

Also, if one wants to keep a played card as a "state secret", one should play a second card (often a fecundity decrease card) on top of the first card played, to "bury" it so that it will not be easily imitated.

Q. I found myself pretty immobile at the beginning of the game because I was C, the desert climate came in before my first turn, and never left. Is that to be expected, or were we doing something wrong?

A. This is to be expected. According to Jared Diamond, this is the reason Africa is in the state it is in today, despite being the cradle of mankind. The Hobbit sometimes also has a harsh time of it. It is irritating, but not fatal. You can cross deserts via caravan upon the first animal domestication. However, getting out of Africa by boat while deserts are active is almost impossible, other than to Madagascar or Coconut Palm Island.

Q: If a Metallurgy stage zero Map Unit attacks a Metallurgy stage zero enemy across a strait what happens?

A: The attacker loses.

Q: Can Slave units Migrate?

A: No. The relevant rule is "The enslaved player may never move his units after placement."

Q: In a game where a player successfully enslaves three other players, can Slave units attack others Slave units?

A: Yes. A slave player may place his unit over the units of another slave player, or indeed any other player other than the enslaving player. This constitutes an attack. The relevant rule is: "This placement may be on top of a foreign (non-slaver) unit, in which case an attack occurs." (See section 14.2.)

Q: When the player who is wiped out becomes enslaved, what happens to his last destroyed unit if the unit that destroyed it also perishes in the attack?

A: Map units that are wiped out are returned to the owning player's demography as a Loss (see the definition of Loss in section 3.0).
Q: What happens to the unit that is under the enslaving unit when the slaver goes into Chaos? If it is under a metropolis I assume it moves to one of the hex points as part of a besieging force, but what if the slaver has no cities, and the unit is under a migratory unit? And what if the migratory unit itself is lost due to Chaos and replaced with a unit of the same color as the slave?

A: Existing slave units remain in position if the slaver goes into Chaos. They may move on their turn. Existing slave units even remain in position if the metropolis they occupy is lost for some

reason. Map units should not be stacked upon top of each other; this is disallowed except if they are in combat, whereupon one or the other or both are immediately removed.

Players who are enslaved may work upon improving their demographics, and plotting for their eventual outbreak. Since slavers must go into Chaos sooner or later to get to the next era, this outbreak is inevitable. My opponents have generally concluded that enslaving does not advance one it towards victory, and using units to suppress slaves are better used on other opponents (if any). The slave player can make things irritating for his masters, occupying space around his cities, and gaining his infrastructure advantages. My opponents prefer the strategy of containment, leaving the player disadvantaged in metallurgy or footprint with one last map unit so that he is not quite enslaved.

The historical model for the game's slave rules were taken from the plight of the Israelites (although the rule that the enslaved can acculturate their masters in some instances was inspired by the Mamluks and the Haiti revolt). The Zionist culture, although frequently enslaved under civilizations such as the Egyptians and Babylonians, and later in pogroms and inquisitions in various European and Muslim lands, still maintained enough identity and culture to outlive all their oppressors and contribute massively to the theological and economic ideas that run civilization today. They never gave up to assimilation! During one game that I recall, a player was repeatedly enslaved during the second and third eras, but came forth as a strong contender in the fourth era (we were playing the extended game with expansion). She came in a close second out of five. My point is that slavery is an undesirable position, but one that does not normally help the oppressor and is not necessarily fatal to the victims.

Q: The rules contain the following strategy recommendation: "Expansion. Quickly expand to hem in your opponents. If you have social instincts, consider using the Silverback Action for expansion and aggression." How exactly does this work?

A: It can be vital to expand rapidly and attack some of your opponents units. For this you need to be able to put more than one new unit on the board. Homo Sapiens, for instance, has a good chance of being isolated in southern Africa; the

Silverback action may be worth price.

As a specific example, the Silverback action can be used early on to gain access to a valuable resource hex such as the cow in India. This action (Silverback is a term for an aggressive leader of a gorilla troop) typically gives a player two or three population actions during a turn, with no chance of going into chaos. If an opponent occupies the cattle spot, one can create one hunter-gatherer unit to attack the opponent, killing off both units, and then with the second population action create and send a second migrant to occupy the hex.

Q: If you are in the dark ages can you still suffer the effects of missing the stability roll? You can easily get into a cycle where you have only 1 action (1 innovation) a turn usually with nothing you can do to improve your situation and eventually you miss your stability roll again which sets you back by loss of units on the board and cards suppressed.

A: The effects of chaos do not differ if one is in the golden age or dark age. To avoid going into "deep chaos" (declines that last 2 or 3 turns), one should keep cards in reserve.

Q: Can you gain face-up cards while in a dark age or does everything stay flipped over until you are in a golden age?

A: While in dark ages, one is vulnerable to revolution, but other than that there are no special rules for the dark ages. Thus one can gain face-up Public cards while in the dark ages. Also, it should be noted that going into chaos during a golden age can advance a player into the next era, whereas going into chaos during a dark age merely stagnates the player.

Q. Why would one want to bid for a card (or play the right side of an Idea card) that has an Elder <u>Loss</u> and no other effect?

A. There is no reason to play the right side of a card that has only an Elder <u>Loss</u>. But sometimes one has no choice. These cards are in the deck to represent the bad side of unrestricted growth, or low technology expansion such as pollution and soil salinization.

Q. If someone is in a golden age in Era II and fails a stability roll, why would he not want to advance to Era III?
A. One should always advance to Era III if one

can, because it seems better than Era II. However, the requirements for left side play are higher in Era III than II, so there is a small downside to this advancement, if one has low infrastructure.

Q. Any tips on keeping innovation up and fecundity down? The single action to ransack a Fecundity Decrease and then play it during Phase 3 seems slow.

A. There are many players who complain how hard it is to keep innovation high and fecundity low. This is the tempo of the game: how to make fewer (but bigger-brained) babies. I have only a few tips. Try to ignore tempting infrastructure increases in favor of fecundity decreases. Keep fecundity decrease cards in reserve, for recovery from chaos. See the tips on section 4.0 for gaining Elders, which helps keep innovation high. Go to higher eras: The higher the era, the more fecundity decreases there are. This is particularly true for the Era IV deck, which has birth control, the pill, abortion, etc.

Q. Are Population Actions compulsory?

A. Actions are never compulsory. (The rules say "may perform"). Icons on cards are also optionally applied, except as specified on section 9.3 (Elder Losses or encephalizations).

Q. Is there a limit to the number of map units belonging to the same player that can be on a single spot?

A. There is a limit of one unit per spot. The migration rules in section 11.0 state: "[A unit] may not end [its move] on another unit unless it is attacking it."

Q. What is an attack?

A. An attack occurs when a migratory map unit enters the same spot as a foreign migratory unit (and is not allowed or does not want to leapfrog).

Q. What is a siege?

A. A siege occurs when a migratory unit occupies a spot with a foreign metropolis in the same hex, whether the migratory unit moved or not, and whether there are enough units to defeat the metropolis or not.

Q. Is a siege an attack?

A. Yes.

Q. Is a Sabine Raid allowed every turn?

A. Yes, a Sabine raid is possible every turn, as long as attacks or sieges continue.

Q. Is it possible to chain movement? That is, can you populate and then move five hexes with the free migrate action, then populate again at the place you've just moved to and then migrate the second unit another five hexes, and then populate again and move this third unit another five hexes?

A. Yes.

Q. What does "use of a metropolis in an oil hex" mean?

A. In order to use the vehicle technology or air force technology abilities described in the rules and on the map, you must have a metropolis in an oil hex, OR you can have oil rights granted to you by an ally with a metropolis in an oil hex (per the "Embargo" rules). A player with oil can set or lift oil rights to others during his turn.

Era I Example of Play

This example of play will show the actions taken by one player (Player A) during the first turn of the game. The actions shown are not necessarily optimal play; the idea is to describe the flow of the game and how the actions are handled. Players are encouraged to set up the game and follow along with the examples shown.

Player A, Turn 1, Phase 1 – Innovation Actions
Player A's Innovation Number is one, since the rightmost vacant slot at the beginning of this phase on Player A's Innovation Track is "1".

Only two areas of the Archaic Homo Sapiens brain are uncovered, the Limbic System and the Hindbrain. This means that the only allowable actions are those that require one or both of these symbols; actions that require, say the neocortex can not be chosen.

The only action that meets this requirement is "Novel Behavior," which allows the player to draw the top card from the Era I deck. The card drawn is "Raft."
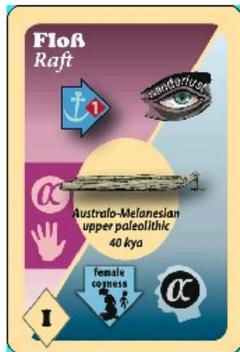
Player A, Turn 1, Phase 2 – Resolve Catastrophes
The "Raft" card does not contain a Catastrophe icon, so this Phase is skipped.

Player A, Turn 1, Phase 3 – Play Cards
The left side of the Raft card contains two prerequisite conditions: Neocortex and Limbic System. Since the neocortex area is covered by a Brain Unit, the left side of this card may not be played.

Player A decides to play the right side of the card. There are two icons: Encephalization and a Fecundity decrease. The Encephalization is not optional but the Fecundity decrease is.

In this case, Player A decides to perform both actions in the order Encephalization first and Fecundity second. The Encephalization action removes the Brain Unit from the Neocortex of the Brain map; this block is placed on the rightmost vacant slot on the Innovation track (covering the "1*" slot). The Fecundity decrease moves that same block (thus uncovering the 1* slot on the Innovation track) to the rightmost vacant slot on the Population track (covering the 1* slot on the Population track).

The last step is to place the Raft card face-up on Player A's discard pile.

Player A, Turn 1, Phase 4 – Stability Roll
The symbol directly beneath Player A's rightmost uncovered Population number is a happy face. This means that no Stability Roll is required, so play moves on to the next Phase.

Player A, Turn 1, Phase 5 – Population Actions
The number of Population Actions Player A can take is one, since that is the number in the rightmost vacant Population Track slot. Player A does not have any Elders, so he may not expend Elders to increase this number.

Player A decides to perform a Population Increase action. To do so, he takes the leftmost unit on the Population Track (which, you'll remember, went from the Brain map to the Innovation track to the Population track) and places it on the same spot as the unit already on the board. Since only one unit can occupy each spot and since the Population Increase action allows a free Migration Action, the unit is now moved up to five spaces. One thing to remember is that each player's Footprint Infrastructure is one (this becomes important in Phase 7). To prevent starvation, the new unit must be moved far enough away so it is not in the same hex as the already existing unit. In this example, this Map Unit is moved five spaces to the east and is placed in the land spot beneath the Bactrian Camel.

Player A, Turn 1, Phase 6 – Resolve Sieges
There are no foreign metropolises on the map, so this Phase does not apply.

Player A, Turn 1, Phase 7 – Resolve Starvation Hexes
Player A only has one unit in each of two hexes. There are no foreign units in either of these hexes, so they do not count against Player A's units. Therefore, Player A's Map Units do not exceed their footprint are and not removed from the map.

Player A's first turn is now complete.

Credits
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TABULATION OF ERA CARD ATTRIBUTES

Era	Elder Gains	Elder Gains + Resets	Public Cards	Fecundity decreases[1]	Multiple fecundity decreases	Energy advancements	Maritime advancements	Resource developments
I	37% [2]	67% [2]	13%	60% [2]	0%	0%	10% (stage 1)	0%
II	31%	40%	40%	43%	6%	0%	14% [3]	17%
III	27%	35%	51%	11% [4]	3%	8% (stage 2)	4% (stage 2 or 3)	22%
IV	33%	40%	53%	20%	11%	4% (stage 3) [5]	16% (stage 3 to 5)	38%

Use this table to decide which Era is best to draw cards from. For instance, if one needs Elders, Eras I and IV are best.

Table notes:

1. Only fecundity decreases without Elder Losses are counted.
2. These high values indicate that one should be drawing from Era I when accumulating cards to recover from chaos. Primitive skills will be in demand when civilization collapses!
3. Only 3% chance to advance to maritime stage 2 if one has no rafts. The moral: if you want to go to Australia or America, draw from Era I until one gets rafts.
4. Era III (feudalism) is grim for family values. Do not draw from the Era III deck unless one needs technology or victory cards (and have the ability to win bidding).
5. If at Energy stage 3, there is a 5.5% change of getting a card to advance to Energy stage 4. Note that the only way to get to Energy stage 1 is through animal domestication.

ORIGINS — Sequence of Play

SIERRA MADRE GAMES

1. Innovation Actions (Number of Actions = Innovation Number)

ERA I Actions

NOVEL BEHAVIOR — Draw a new Era I card.

IMITATOR — Ransack an Era I card (i.e.; take one from the top of an opponent's discards), or draw a card (if no cards can be ransacked).

SILVERBACK — Stability Roll: +2

LOCUTION — Must go into Chaos this turn. / Clear Wernicke's Area.

LEXICALIZATION — Move a Brain Unit into an adjacent vacant domain.

STORYTELLER — Reset 1 Elder, or unsuppress one Public card.

NATURALIST — (animal) or (plant)

ERA II & later Actions

INVENTION — Draw a new card from any attained Era Deck.

EDUCATION — Ransack (i.e.; draw from the top of an opponent's discard pile a card of an attained era.)

BABY BOOM — Shift a population into innovation.

ECONOMIC STIMULATION — Perform as many as the rank of your best information card.

ENTER GOLDEN AGE — If the requirements are met, shift your Era Unit out of a dark age into a golden age. Choose one Public card in each stack to turn face-up.

REVOLUTION (Era III & later) — Swap Brain map card with an unused one (if any) or with another player in a dark age. Stability Roll: -2.

ESPIONAGE (Era III & later) — Steal a card at random from an opponent's hand.

COLD WAR (Era IV & later) — Suppress one Public card in an opponent's Repertoire.

Disease Effects — Elder Loss (fecundity) (fecundity)

2. Resolve Catastrophes (Volcanos, climate, and disease)

3. Play Cards down to Hand Size (Resolve card effects and auctions)

4. Stability Roll (Chaos if fail: depopulate, enter dark age, suppress Public cards, & end turn)

5. Population Actions (Number of Actions = Population Number + Elder Expenditures)

ACCULTURATION — Steal an Elder (becomes a Guest Worker) from a cultural inferior.

TRADE (Era III & later) — Make an Elder/Infrastructure trade with a cooperating Neighbor.

URBANIZATION (Era III & later, requires 3 actions) — Convert a migratory unit on a site hex into a Metropolitan unit.

SABINE RAID — In an attack this turn, perform a ransack or (if Era III or later) espionage upon the defender.

POPULATION INCREASE — Place a migratory Map Unit and move it up to 5 spots.

MIGRATION — Move a migratory Map Unit up to 5 spots.

GLOBALIZATION (Era IV & later) — Pick a victim with more Elders than metropolises to suffer an Elder Loss.

LIVESTOCK RAID (Era II & later) OPTIONAL — Gain Energy stage 1 or Footprint stage 2 from a Neighbor.

MINING (Era III & later) OPTIONAL — With a resource Metropolis & an Elder expenditure, may roll on Resource extraction adding one.

FREE TRADE (Era V) — Same as "Trade" except that up to 3 Elders can be gained.

TOURISM (Era V) — Steal an Elder (becomes a Guest Worker) from a player with fewer active Public cards.

TERRORISM (Era V) — With an Elder expenditure, perform a Barbarian raid.

ELECTIONS (Era V) — +2 to siege strength (attack or defense).

6. Resolve Sieges (Take a metropolis & a Guest Worker if you outnumber the defenders)

Note: The metropolis counts as a number of Units equal to its Footprint. The side with a metallurgical advantage adds one to his number of Units.

7. Resolve Starvation Hexes (Remove your overcrowded Units down to your Footprint)

Legend

Elder Reset - Shift a consumer up to producer, or unsuppress a Public card.

Elder Expenditure - Shift a producer to consumer.

Elder Gain - Shift an innovation to producer.

Elder Loss - Producer or consumer to innovation.

Fecundity Increase - Population to innovation.

Fecundity Decrease - Innovation to population.

Advancement - Move ahead one stage on the Infrastructure track, but not beyond the Bound.

Encephalization - Brain Unit on that instinct is Lost.

Cultural Diffusion - If on top of your discards, may ransack or bid in auction for cards of eras not yet attained. Free ransack if attacked.

Barbarian Raid - Choose a Neighbor who suffers the Loss of his choice of an Elder Unit or a Public card. Ends slavery. The barbarian card is removed from the game.

Animal Husbandry - Allows a Domestication attempt of an animal hex.

Crop Cultivation - Allows a Domestication attempt of a plant hex.

Resource Extraction - Allows a Domestication attempt of a resource hex.

Requirement - Instincts you need to use the action.