
THIRD EDITION
GREENLAND
A SURVIVAL GAME FOR 1-4 PLAYERS
BY PHIL EKLUND

"Two centuries after the outlaw Erik the Red had misnamed this treeless ice-covered island "Grænland", ten emaciated Norsemen clambered out of a rowboat and onto the pack ice. It was the May after the hardest winter they could remember, and months earlier they had run out of stored food and hay. The clubsmen expected to harvest the first available meat of the year, doe-eyed harp seal pups abandoned on the ice. But instead they found only a volley of Thule arrows. The Skrælings (a disparaging Viking word for both the Thule and Tunit tribes) have superior numbers and Arctic survival skills. And if the Thule kill off the Norse and Tunit, they will rule Greenland alone."

A. SUMMARY

The four players represent the Tunit[1] (Player Green), Norse[2] (Player Red), Sea Sámi[3] (Player Blue), and Thule[4] (Player Yellow) tribes fighting to survive in Greenland in the 11th - 15th centuries. Each tribe sends Hunters to gather food and fuel to support their children, elders, and livestock while collecting victory points by wiping out competing species or gathering resources. Historically, the climate turned frigid and all but the Thule (Inuit) died out.

- **Turns.** Each game **turn** represents one generation. Each turn has six *phases* **(A1)** during which each player performs his actions for the phase before going to the next.
- **Terminology.** Terms being defined are listed in **bold**, or *italicized* if defined elsewhere. Capitalized terms are defined in the Glossary of Tribesmen Roles (player aid).

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1 The Tunit migrated to the New World relatively recently (5000 years ago) and are thus not closely related to either the Inuit or the Amerindians. Specializing in ice fishing, they lacked even domestic dogs or the bow and arrow. "Tunit" is the name given to them by their traditional enemies the Thule-Inuit, but the anthropologists call them the Dorset culture. In 1903 a British whaling ship stopped by the last colony of Tunit living on an island in Hudson Bay. One of the sailors was sick, and within months all the Tunit were dead. Nobody deciphered their language before their extinction, and it was never put to writing. «*The Tunit were strong people, but timid and easily put to flight. Nothing is told of their lust to kill.*» Netsilik Inuit, 1923.

2 In 984 CE, Erik the Red, a Viking outlaw leading a group of Norse settlers from Iceland and Norway, founded a colony known as the "Eastern Settlement" and the "Western Settlement", the first European colonies in the Americas. According to the Sagas, he named the island *Grænland* essentially as a marketing device.

3 The Sámi are Finno-Ugric speaking tribes who have long inhabited the arctic regions of Europe, and had started to domesticate the reindeer since at least 800 CE.

4 The Thule are known today as Inuit or Eskimos. Besides their fabled harpoons and kayaks, the Thule had dog sleds, *umiaks* (skin-covered open-topped boats with up to twenty sets of oars), a complex food cache system, slit goggles, and finely tailored parkas, pants, leggings, boots, double-thumbed mitts, and tent covers. They were a whaling culture, and a single 40 tonne Bowhead would sustain a community of 50 for a year with food and flammable blubber. They deracinated and enslaved the Tunits whenever they met them, and perhaps the Greenland Norse met the same fate.

- **The Golden Rule.** If the text on a card contradicts these rules, the card has preference. If text on a play aid contradicts these rules, the rules have precedence.

A1. GREENLAND SEQUENCE OF PLAY (SIX PHASES PER TURN)

1. **EVENT (D).** Reveal an event card to begin the turn. Then determine the *first player* **(A2)**, and apply the effects of the event icons from left to right to all players. If the card shows a Norse trade ship, *auction* its import good **(D10)**.

2. **HUNTER ASSIGNMENT (E).** All players assign their unassigned tribesmen as Hunters, Elders, Guards, Colonists, or Sabine/Livestock Raiders. See glossary for details.

3. **NEGOTIATE and ATTACKS (F).** Players can bribe others to peacefully withdraw tribesmen from contested biomes, including marrying them to their *daughters* **(F1)**. Unless withdrawn, they must use their tribesmen to *attack* other tribesmen on the same card **(F2)**, treating the card as a "medallion" biome.
   - **New world turns hostile.** If a New World card ends up with over 6 colonists, flip the card to its *hostile* side **(F3)**.

4. **ROLL FOR HUNT (G).** All players make *hunt rolls*, rolling one dice for each of their assigned tribesmen. If the number of ⚀ or ⚁ rolled is at least equal to the number shown on the biome being hunted, add new **babies** (i.e. unassigned tribesmen for the next generation) and/or new resource disks, as indicated. For row cards on the *cold side* **(D4)**, only ⚀ are successful.



Bloodied dice. The **bloody dice** icons show which dice-rolls kill off Hunters, regardless if the hunt is successful or not (**G0**). Surviving Hunters are returned to your *unassigned tribesmen* (**B0**).

- **Hunt booty.** If successful, Livestock Raiders steal babies and Sabine Raiders place a Husband **(G1)**.
- **Hunt modifiers.** Certain wives or daughters, Elders, or domesticated animals allow re-rolls of specified dice **(G2)** or force all dice of a specified value to be counted as ⚀ **(G3)**.
- **Winner takes all.** If multiple players have Hunters on a biome card, the first to hunt successfully reaps the benefits, and the others go home empty-handed **(G4)**.

- **Biome depletion.** Biomes with *trophies* can be added to your tableau **(G5)**, and aren't replaced. Biomes with inventions or domesticable animals can be taken into your *hand* **(G6)** and are replaced in the row.

Remember: *When you make a hunt roll, each dice face shows the fate of one of your Hunters in the hunt!*

5. **DOMESTIC ANIMALS (H).** Each  card in your tableau gives you the babies specified without a hunt roll, if you expend the energy or elders specified.
   - **Pacification.** At the end of this phase, anyone living on a hostile New World card can expend an ivory to *pacify* it **(F3)**.
6. **ELDER ACTIONS (I).** Finally, all players perform elder actions, if they have elders in the proper **rank** (i.e. row on their Placard). If you have no elders, you may convert to **monotheism** (i.e. flip the Placard over).

A2. PLAYER ORDER - PHASES 1, 2, & 5



The icons in the top center of the turn's event card show the color of the **first player**, who is the first to perform his actions in each phase. Then play goes to the next player color in the row. This **player order** is used for all phases except 3, 4 and 6.

- **Council of War.** If this turn's event designates you as the first player and you have a rank 4 elder (War Chief) at the start of the turn, you may swap with another player to be the first player for the entire turn.

A3. NEGOTIATE/ATTACK ORDER - PHASE 3



The player with the most iron (black disks) determines the order of negotiations among cards containing tribesmen of different players. Unless all but one player's tribesmen leave a card, all players must immediately *attack* **(F2)**, starting with the player with the most iron.

- **Ties.** If tied for the most iron, go in *player order* **(A2)**.

A4. HUNT ORDER - PHASE 4

The *first player* decides which card is hunted first, second, etc. This is important in a *Sabine Raid* **(G1)**, in which a player may gain or lose the ability of a daughter.

- **Least Tribesmen Order.** On a contested card, the player with the least number of tribesmen there rolls first.[5] If tied, go in *player order* **(A2)**.
- **Hunt First.** Certain cards allow you to **hunt first** if on a card of the specified *biome type* **(B1)**. If tied to hunt first, go in least Hunter order.

A5. ELDER ACTION ORDER - PHASE 6

All polytheists go first (in *player order* per **A2)**, then all monotheists (also in player order).

B. COMPONENTS



72 Tribesmen. They represent **Elders** if on a Placard, **Colonists** if on a New World Card, **Husbands** if on the exogamy box of a daughter card, and Hunters if anywhere else. There are 18 in each of the player colors (Norse-Viking = Player Red, Thule-Inuit = Player Yellow, Tunit-Dorset = Player Green, Sea Sámi = Player Blue). You must keep your **unassigned tribesmen** separate from the **Valhalla** (i.e. the common deadpile).[6]

4 Large Tribesmen. Each player has a larger tribesman, used for his *Alpha Hunter* (**E7**).



32 Orange Disks. They represent **energy** (the burning of wood or blubber). They are used to support domestic animals, promote tribesmen to Elders, and to perform certain elder actions.

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5 This is because a large arctic expedition suffers delays while getting underway, long supply lines, lack of stealth, and only being as fast as its slowest member.

6 *Valhalla* is usually interpreted as the Norse belief in the afterlife. Their dead were buried with their weapons, horse tack, jewelry, and (if a smithy) with their full set of tools. They regularly brought food and beer to the burial tumulus, and went to great lengths to recover bodies and set gravestones, quizzical practices still followed today. In Greenland, the coffins were reused, by brutally shoving aside the previous mummified bodies. I interpret ancestor worship, practiced by all human cultures but not by any other animal, as a signature not of a belief in the afterlife, but of a time before there were any beliefs at all, and acceptance that individuals survived death and continued a parallel existence was adapted behavior. In "bicameral" theory, before humans acquired consciousness they came to decisions based upon the hallucinated voices of the dead.



12 White Disks. They represent **ivory** (also special wool, live bear cubs or falcons). Used to auction imported goods arriving by ship. They are worth 1 victory point each for monotheistic players.



12 Black Disks. They represent **iron**, used to make tools, reverse losses, and allow you to attack first. They are worth 2 victory points each for monotheistic players.

10 Six-sided dice (10d6). Use for attack roll, hunt roll and Elder die-off.

63 cards (See the side of the box). There are 17 event cards, 15 North Greenland biomes, 16 South Greenland biomes, 2 New World cards, 10 daughter cards, and 3 domestic animal cards.

4 Placards. Used for elder tracking.

1 Player Aid.

B1. BIOME TYPE, CLIMAX, AND HOMELAND



The icon in the top right corner of a **biome** describes the **biome type**: either spear (land hunting), harpoon (maritime hunting), fishhook (fishing), hammer (metallurgy), or medallion (raid).

- **Climax.** The number in the icon is the **climax**. The lower the number, the more likely it is to be replaced by a *migration* **(D1)**.
- **Homeland.** The color of the biome icon indicates that the card is part of that player's **homeland**. Green / Yellow is the Tunit and Thule homeland in North Greenland. Blue / Red is the Sea Sámi and Norse homeland in South Greenland.[7] Cards in your tableau are always part of your homeland.



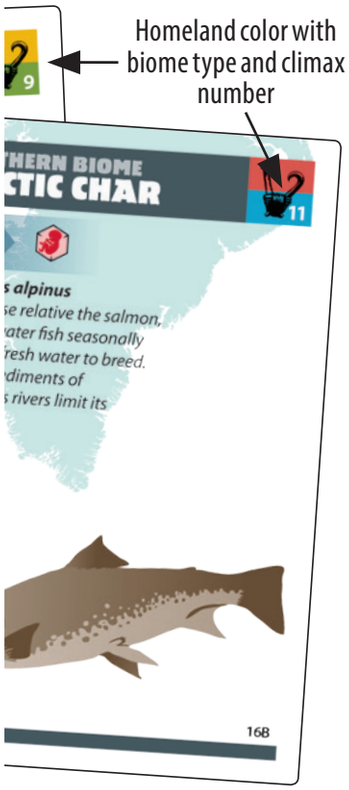
Northern biome

7 Although previous cultures had populated Greenland, only the Tunit lived there when the Norse arrived in 980 CE. The Thule (paleo-Inuit) were actually the last to arrive, landing in North Greenland around 1200 CE. Both the Tunit and the Norse were extinct in Greenland by circa 1450 CE (and the Tunit extinct everywhere by 1903 CE). Therefore, when comparing the Inuit to the Danes currently in Greenland, it is actually the Danes who can claim to be the suppressed "Native Americans" (Greenland is considered part of North America).

B2. TABLEAU AND HAND MANAGEMENT

You will manage a faceup row of cards alongside your Placard called your **tableau**. Your starting tableau are the three cards specified in **C0.5**. Biomes with the hand icon can be taken into your *hand* per **G6.** While in your hand they represent unrealized ideas, and so are not in play and their abilities and VP are not activated until played into your tableau as an *elder action* **(I1** or **I4)**. cards you purchase in auction go directly into your tableau per **D10**.

Hand size. Your **hand size** equals what you are granted by certain daughters and imports. You also add one to your hand size for each rank 3 Elder. If you have none of these, your hand size is zero.



Southern Biome

- **Overflow.** If you acquire a new hand card and your hand is full, you must choose one to discard. If your hand size drops (e.g. you lose a literate wife or artisan), you must discard hand cards until your hand size is reached.
- **'D' or 'I' cards.** Biomes that can be taken into your hand are marked either with a D (Domesticable animals) or I (Inventions). The two Norse farm animal cards are other examples of D cards.

Example: *The Thule have Peepeelee (hand size + 1), a husband on Birgitta (hand size + 2) and a Sage (rank 3 Elder). Their maximum hand size is four cards.*

Tip: *The Tunit and Sea Sami start with no literate daughters and if they lose their rank 3 artisan, they cannot obtain any livestock or inventions other than what they buy from the ship. (This is historical.) As an early high priority, they need to maintain an artisan, buy an imported book, or marry a literate daughter.*

B3. EXCHANGING CARDS FOR DISKS

Some cards, as indicated by the **exchange icon**, can be discarded at any time to gain the disk or disks specified.

- **Rustlers.** A D card with Livestock Raiders present **(E5)** cannot be exchanged.
- **Woodpile Rot.** Respect *woodpile rot* **(B4)** when exchanging livestock for energy.

Breakage. If a *breakage* event (**D6**) occurs, you must exchange one import card with an iron exchange icon (if you have any) to gain an iron disk.

Example: *The Falconer's Ransom Event allows gyrfalcons to be worth three ivory instead of one for the turn. If you successfully hunt a wild falcon or exchange a domesticated falcon for disks, you get 3 ivory.*

B4. TOKEN MANAGEMENT

- **Population.** You are limited to the 1 Alpha and 18 tribesmen of your color provided.
- **Ivory and Iron.** Use of white or black disks is unlimited. Use substitutes if you run out.
- **Woodpile Rot.** You may never hold more than 8 orange disks (energy).
- **No Alchemy.** You may never substitute a disk of one color for a disk of another color.

C. SETUP

1. **Events.** Separate the event cards, and randomly select 10 of them to go into a shuffled facedown stack. The remaining cards will not be used in this game.[8]

2. **Draw Decks.** Separate the North Greenland biomes (with a green/yellow icon in upper right), which go into a shuffled facedown deck. Do the same for the South Greenland Biomes (with a blue/red icon in the upper right), in a deck just below the North Deck.

3. **Greenland Biomes.** Reveal the top six cards of the North Biome Deck and spread them into a row to the right of the draw deck. Do the same for the South Biome Deck. These are the North and South **rows**. All cards begin to the right of the deck, i.e. the **warm side**.

4. **New World.** Place the Markland card into the North row, and the Vinland card into the South row, in a position between the deck and the leftmost card in the row. This brings the number of cards in both rows up to 7. Both start "Peaceful" (blue side up).

5. **Tribal Placard and cards.** Randomly assign each player to a Placard (starting on its Polytheism side). Each also gets the **daughter** cards of his color (three for Players

8 The Norse-Viking Colonies in Greenland lasted about 12 generations. The first to vanish (around 1360-1400) was the Western Settlement, which was colder and more marginal in hay production, and also closer to the ivory hunting grounds shared with the Thule. It once had a population of 1000. The last written records indicate heavy Thule attacks, and archeological evidence shows the last inhabitants were starving when they abandoned the settlement. After the sea ice increased and the supply ships stopped coming, the bigger and more prosperous Eastern Settlement (population of 5000) died out for unknown reasons around 1450 CE.

Yellow and Green, two for Players Blue and Red). Player Red (the Norse) additionally starts with one side of one **Norse farm animal** card of their choice (either cattle, pony, sheep, or goat). Set the unused Norse farm animal aside for possible use later. Player Blue (Sea Sámi) additionally starts with one side of the **Sámi farm animal** card (domestic reindeer or lappget).[9] Place your cards in a row called a **tableau**; see the side of the box.









Tip for Players Red & Blue: *Examine the rows before choosing your domestic animal.*

6. **Tribesmen.** Each player gets the 18 tribesmen and the Alpha of his color. Place the Alpha plus 5 tribesmen below your Placard; these are your **unassigned tribesmen**. Place 6 six tribesmen by your Placard, one next to each row; these are your starting **Elders**. Put the remaining tribesmen into a common deadpile called **Valhalla**. It's best to use a small bowl to keep those in Valhalla separate from the living Tribesmen.

7. **Tunit Markland Colony.** Player Green starts with 5 tribesmen on the Markland card in the North row, taken from Valhalla. These are **colonists** and are *permanently assigned* **(E2)**.

8. **Starting Disks.** Start each player with 5 orange, 1 white, and 1 black.

C1. THE TWO OR THREE PLAYER GAME

Pick two or three random cultures, and the cards of the other cultures are not used.

- **Starting rows.** Start with 5 biomes instead of 6 in each row.

9 On a recent trip to northern Norway, I talked to both a Sámi elder and an ancient islander who told me of a tribe I had never heard of, the Sea Sámi. And my partner (Jon Manker of Ion Game Design) showed me some of his grandfather's books about the Sámi (Ernst Manker was a noted ethnographer who periodically lived among them). Little is known about their boats and hunting technology, or their relations with the Vikings and Inuit, but it was clear they were a significant maritime presence in the Arctic. Although all but eradicated by the Black Plague in the 1300's, their nomadic mountain cousins carry the torch today. Phil Eklund, August 2015

C2. THE BEGINNERS GAME

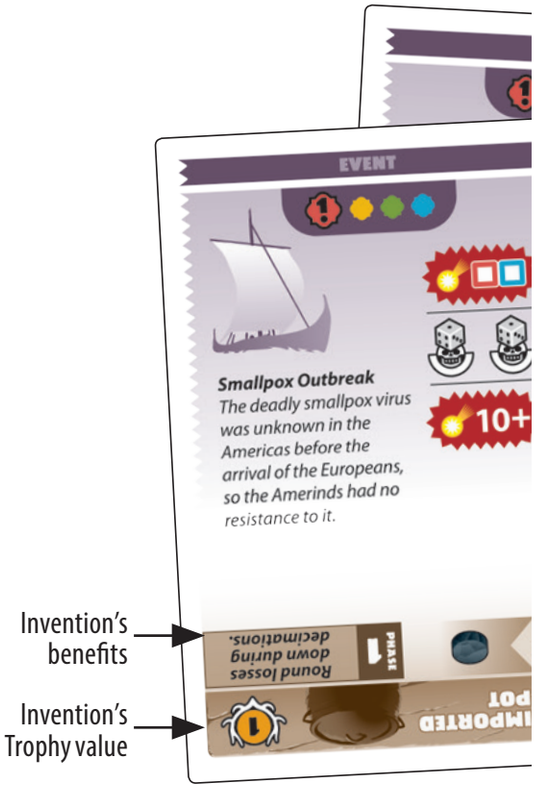
Remove all daughters, Norse domestic animals, New World, and D and I cards from the game. Skip all advanced rules, i.e. **D9**, **E2**, **E5**, **F1**, **F2**, **F3**, **F4**, **G1**, **G6**, **H1**, **H2**, **I1**, and **I4.** These are marked with [ADVANCED].

C3. THE SURVIVALIST GAME

This brutal variant is more likely to achieve the historical result of only one culture left standing.

- **Alpha.** The Alpha's *special ability* **(E7)** is changed so that , unless you choose *feet of clay* **(E7)**, he auto-rolls ⚁ instead of ⚀ . Thus his ability can be suicidal if used (see example) and is no good on the cold side.
- **The iron rule (F4) is not used.**
- **All cards taken into your hand or tableau are not replaced.** Thus Greenland freezes over faster.

Example: *In a warm-side polar bear hunt with an Alpha and 4 Hunters, you decide to use the Alpha ability. This means the Alpha auto-rolls a* ⚀ *which is a hit yet suicidally kills him. Assuming at least one more hit, the hunt is successful and you to resurrect the Alpha as one of the four babies.*



D. EVENT PHASE (player order)

Reveal the event card and determine the first player per **A2.** Then apply from left to right each of the card's icons to all players per **D1** to **D9.** Finally auction the card per **D10**.

D1. NORTH AND SOUTH MIGRATIONS

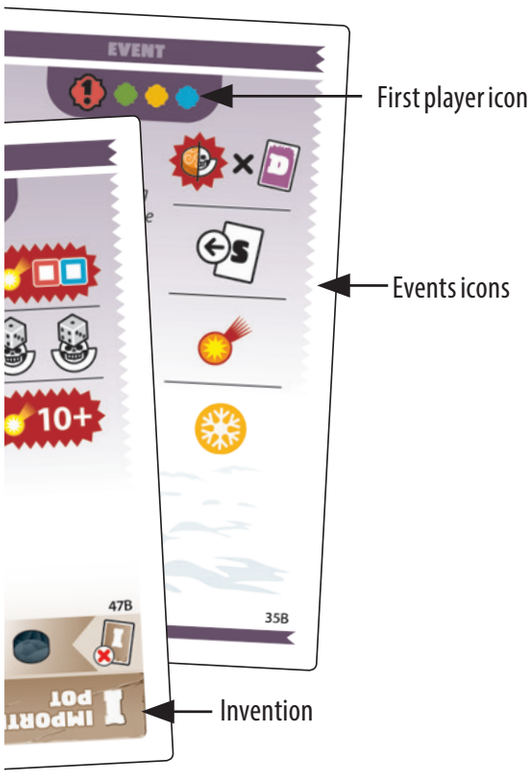
If the migration icon appears, reveal a new card from the top of either the North Greenland or South Greenland deck, as indicated. Find the lowest *climax* **(B1)** card in the row, on either the warm or cold side, and replace it with the new card in the exact same location so that the number of cards in the row remains unchanged. The replaced card is discarded out of the game.

- **No migration occurs if the deck is out of cards.**

Example: *A southern migration occurs. The existing three cards in the South row are climax 6 and 11 on the warm side, and 4 on the cold side. The climax 4 card is discarded and replaced with a new card drawn from the south deck. Note that the climax 4 card is replaced even if the new card is a lower climax.*

D2. DECIMATIONS

The decimation icon means that the affected players are **decimated** (by disease, internal strife, etc.). To decimate, remove at least half your unassigned tribesmen (i.e. all Hunters and Alphas of your color not on cards, Placards, or in Valhalla), and exactly one Elder (of your choice, if you have any). Removed tribesmen go into Valhalla. There are three causes of decimation:





Crowd Disease. Decimate all players who have the specified number or more of unassigned tribesmen.



Venereal Disease. Decimate all players with Husbands married to daughters of the color of the icon. The Husband himself is immune.



Feuds. Decimates all players who do not have a rank 1 elder of any color on their Placard (i.e. a chief or foreign Missionary or Representative). Having a Representative (**I5**) in a foreign Placard gives anti-feud protection both to you and the owner of the Placard. This anti-feud protection is shown by the "slashed feud" icon in the first rank of your Placard.[10]

10 The *Greenland Sagas* document the following story of a Norse feud. A hunter found a beached ship full of corpses dead of starvation, and donated the ship to bishop Arnald for the benefit of the lost souls. The bishop awarded the hunter the ship's valuable cargo. Relatives of the dead protested that they deserved the cargo, but the bishop ruled against them. A fight broke out during mass, and the bishop's bodyguard Einar killed one of the complainants with an axe. The slain was denied a Christian burial, and angry relatives arrived from the Western Settlement. Einar tried to placate them by offering an ancient suit of armor as compensation to the dead man's family. This was rejected and nine men were killed in the fight, including Einar. The Thing awarded compensation to Einar's side, who had lost the most men.

Example: *The syphilis event afflicts players with husbands on either yellow or green daughters. The Norse player is married to Kirima, so for his decimation he loses two tribesmen, leaving only his Alpha. He also chooses his bishop as his dead elder. The Thule, married to Meeka, are also decimated. Although they have no elders to lose, four of their seven unassigned tribesmen perish.*

D3. ENERGY/ELDER DEPLETION[11]



An event with the depletion icon means that each player suffers a number of **depletions**, which are removed from his choice of energy and/or Elders. The number of depletions you suffer is either the number of  cards you have, or the number of Elders you have (as specified). If you have no Elders or  cards, then there is no effect.

- **Elders Sent Into The Snow.** Choose which Elder(s) die from among those of your color on any Placard.
- **Animals Sent Into The Snow.** You can choose to discard a  card, instead of discarding an Elder or energy to keep it. If you do so you obtain its value per **B3**.
- **Saila benefit.** If an event card with a depletion icon appears, the number of energy/elders you lose is reduced by one if you have Saila as a wife or daughter.

Example: *The icon sequence shown to the right appears. You have a*  *card but no Elders or energy, so you must discard the*  *card. If it has a resource value per **B3**, you gain those disks.*



D4. GLOBAL COOLING[12]



The **solar icon** means to move the card furthest right in both the North and South rows from the warm side to the cold side (i.e. to the left of the draw deck). Put them to the left of all other cards in the row. They are not replaced, so both rows have one

11 Hunter-gatherer survival is all about surviving the bad times, especially harsh winters as expressed in the game by the depletion icon. Especially for energy-intensive activities such as feeding cows or refining bog iron, if your energy supplies run low before spring comes, you must slaughter farm animals or send elders into the snow. This harsh decision was dramatized by the novel *Two Old Women* by Velma Wallis, in which two Inuit elders are abandoned in the wilderness so that their tribe would have more for the upcoming winter.

12 An ice cap covers about 80% of Greenland's interior, and salt spray inhibits plants in the outer coasts. So plant growth and ultimately all human and animal land activity is largely restricted to the inner fjords. The game begins at the end of the Medieval Warm Period, when temperatures were a bit warmer than today's and glaciers were in retreat worldwide. The onset of the Little Ice Age heralded global cooling and world-wide glacier growth. The spread of permanent ice in Green-

card fewer on the warm side.

- **The Cold Side.** Biomes to the right of the draw deck are on the warm side, which means that both ⚀ and ⚁ in a hunt roll are considered successful. However, for cards on the cold side, only ⚀ are successful, (see **G0)**.
- **New World Continuity.** The New World cards **(E2)** are biomes following the same rules as others in the row, and so also can go to the cold side.
- **Deep Freeze.** If all the warm side cards have been removed in a row, global cooling will remove a cold side card from the game, without replacement. Remove the card that has been the longest in the cold side (i.e. closest to the draw deck).[13]

D5. ELDER DIE-OFF



Each player rolls 1d6 per **elder die-off icon**, and kills off one of his *elders* of this *rank* **(A1.6)**. Choose an Elder of your color from your Placard, or on other players' Placards if you have any Elders of the affected rank there. If you have no Elder in the affected rank, there is no effect.

D6. IRON IMPORT BREAKAGE



Each player who has one or more **iron imports** (i.e. an import with the iron "X" symbol, see **B3)**, must choose one to convert into an iron disk.

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land destroyed lichens and grasses needed by caribou, musk ox, and the Norse farm animals. The Little Ice Age seems to be associated with the period called Maunder Minimum, when the sunspot numbers, which normally oscillate in an 11-year cycle, shut down. Low sunspots means low solar UV output and low solar wind, which mushrooms the size of the Earth's ionosphere with an unknown effect on weather. The resumption of sunspots in 1730 has resulted in a warming trend that persists today. However, the latest sunspot cycle (#24) has been notably quiet, not getting going until Feb 2014, three years after the predicted maximum, a period marked by global cooling. If sunspot cycle #25 stalls, a new Maunder Minimum with another Little Ice Age could be on the way.

13 The game starts in 1200 CE, after the arrival of the Thule. By this time, global cooling had destroyed the Norse barley crop, which the Vikings once grew in tiny quantities for beer. The Little Ice Age also impacted sealing, a major part of the Norse diet (80% in the later years). Seals are sensitive to global cooling because thick ice is unsuitable as a seal-denning area (especially harp seal cubs, who are routinely abandoned on the ice and will starve unless the ice thaws). Walrus, the basis for the Norse economy, are also impacted by ice because they are denied access to the shallow coastal waters where they hunt clams. Deep winter snows, especially associated with crusting, causes local extinctions of caribou. Graham Chapman,*Timescales and Evolutionary Change,* 2005.

D7. STORM



Each player who has one or more rank 6 elders (mariners) loses one.

D8. NO MARITIME HUNTING



No player may assign Hunters to a *maritime hunt biome* **(B1)** on the turn of this event. You may flip these cards upside-down on this turn as a reminder.

D9. CAN'T ENTER MARKLAND [ADVANCED]



No player may move to or from *Markland* **(E2)** on the turn of this event.

D10. AUCTION OF IMPORTS (VIKING SHIP)

Auction any event card with an image of an **import**. All players may bid using their ivory only. If a card is not bid upon, discard it out of the game.[14]



Bid Procedure. Any player can initiate the bid (minimum bid = 1) and any other player can match this or increase it. When nobody is willing to go higher, the high bidder spends his ivory and takes the event card into his tableau. The losers get their bids returned.

- **Ties.** If the bid is tied, players with the Peepeelee daughter (or married to her) win auction ties if they are in the auction. If still tied, resolve in *player order* **(A2)**.
- **Auction Win.** If you win the auction, place the import card into your tableau oriented 180° (so the tan side reads upright).

Example: *The Iceland Trade Ship offers a Norse pony for sale.*[15] *Both Player Red and Player Yellow bid one ivory, and neither is willing to bid higher. Since Player Yellow has the Peepeelee daughter (who wins auction ties), he wins the bid and takes the card into his tableau. Note that imported domestic animals, like all imports, go directly into your tableau instead of your hand.*

14 The Greenlander Norse were primarily ivory hunters; their farms only a means to an end. A document from 1327 records the shipment of a boatload of Greenland tusks to Norway to pay royal taxes. That boatload, with tusks from 260 walruses, was worth more than all the woolen cloth sent to the king by nearly 4,000 Icelandic farms for one six-year period.

15 Players of *Bios Megafauna* know that horses, rhinos, and elephants use an unspecialized hindgut digestive system. One consequence of this is that horses can digest meat. In the Arctic, horses are sometimes fed meat, which is more

E. HUNTER ASSIGNMENT PHASE (player order)

Each player **assigns** all their unassigned tribesmen in *player order* **(A2)**. Assign each tribesmen by placing it on a card, either a Biome (hunting), Placard (promotion), Daughter or Livestock card (raiding or defense), or in the New World (colonizing). You may place as many tribesmen on a card as you wish, or leave some unassigned. You may hunt multiple biomes.

E1. HUNTING BIOMES[16]

To hunt one of the biomes that are revealed, place Hunters directly on it.



- **Homeland.** The Thule and Tunit share a *homeland* **(B1)** in North Greenland, which includes all the cards in the north row except Markland, plus all the cards in both the Thule and Tunit tableaus. This is indicated by the green/yellow Biome type Icon in the upper right corner. The Norse and the Sea Sámi homeland is South Greenland, as indicated by the red/blue biome icon. This includes all the cards in the south row, except Vinland, plus the Norse and Sea Sámi tableaus.[17]
- **Mariner.** You must have one Mariner (rank 6 elder) for each Biome or Tableau card outside your homeland you place Hunters on. Each Mariner can transport up to 4 Hunters to a single biome or tableau card each turn.[18]

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available than hay. As bizarre as it sounds, sometimes Greenland ponies acquire a taste for meat, and can even attack their handlers and eat them!

16 The archeological record shows that the majority of the Norse diet consisted of two seal species: harbor seals, a local animal, and the harp seal, which migrate up the west coast each spring on the way from Canada. The regular arrival of the seals in the spring, just when the winter stores of cheese and meat were running low, would have been keenly anticipated.

17 Sled designs for snow transport vary by culture. The Norse sleigh is related to wagons, with the wheels replaced by rails. The toboggan of Canada lacks rails and is equal in width front and back. The Sámi ackja is boat-like in its stem and stern and seems derived from the Sea Sámi sewn boats.

18 The famed Norse longboat seems to have been derived from the Sea Sámi sewn boats of similar shape. The Norse may have used such boats rather than sleds for the annual trip to the walrus hunting grounds in Disco Bay. The sagas men-

Sleds. If you have a card with a **sled icon** in your tableau, you may place any number of Hunters on one card outside your homeland without a Mariner. If you have two sleds, you may place any number of two cards, etc. However, sleds work only in Greenland, not the *New World* (**E2**).



E2. NEW WORLD CARDS[19] [20] [ADVANCED]

Markland and **Vinland** are biomes in the **New World**. They go into the North and South rows respectively. These cards are not part of the homeland of any player, and you need a Mariner to go there (sleds do not work).

Inexhaustible. Any number of players may place tribesmen on these cards. The **chevron icon** indicates that, unlike all other biomes, any number of players can successfully hunt here.

- **Colonists.** Tribesmen assigned in Markland or Vinland become Colonists and are *permanently assigned* **(E4)** and are not returned home each turn.

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tion sailing times of 27 days from the Eastern Settlement and 15 days from the Western Settlement. Lacking imported wood and iron, without a sewn design the boats would have fallen into disrepair in a couple of generations.

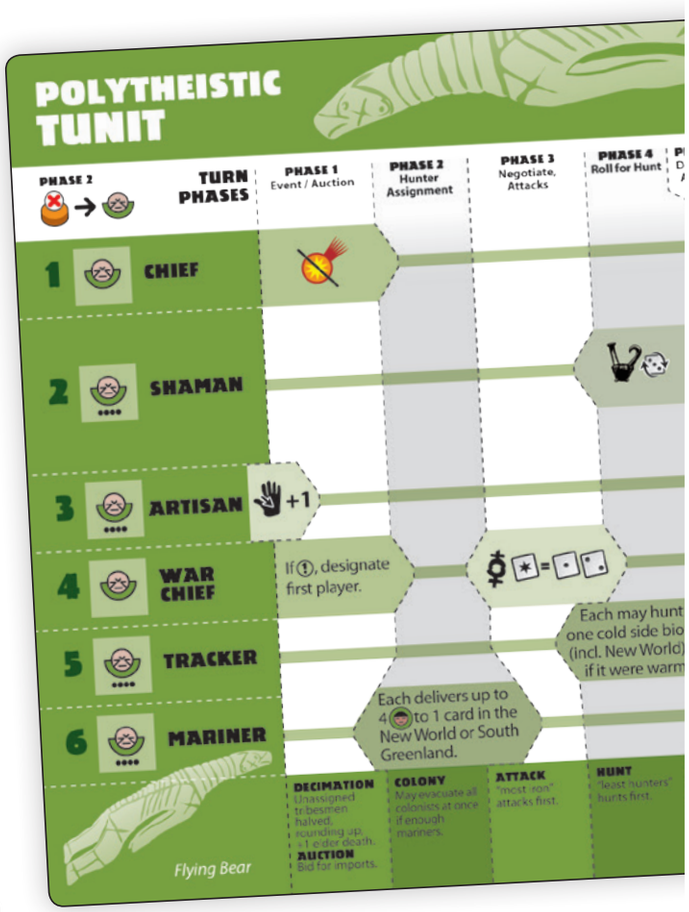
19 The New World arctic coastlines were settled by the Tunit culture, adapted to seal-hole hunting in very cold climates. They were driven out of Vinland by the Beothuk culture before the start of the game, and out of Markland and Greenland by the Thule.

20 Archeologists have excavated a Norse site in the extreme northern tip of Newfoundland with eight wood-sod longhouses and an iron smithy. This is proof that the Vikings reached the New World five centuries before Columbus. According to Viking Sagas, this site was in a land called Vinland, but was abandoned due to hostile attacks by the natives (called by the Norse "Skraelings"). Even after it was abandoned, archeology shows that Canadian wood continued to be used during the Greenland colonization, indicating that the New World was regularly visited for lumber.

- **Hostile Beothuk Natives.** If after **Phase F** (Negotiations & Attacks), the number of Colonists in Markland or Vinland is greater than 6 (counting all players), then the card flips to the *hostile side* per **F3**.
- **New World Little Ice Age.** If Markland or Vinland flips over or shifts to the cold side, any colonists on it follow. If the card is then removed (e.g. in a *migration* **(D1)**), all the colonists on it go to Valhalla.

E3. PROMOTION TO ELDER

By paying an energy, you may assign an unassigned tribesman to one of the six elder *ranks* **(A1.6)** of your Placard. His powers are effective immediately.



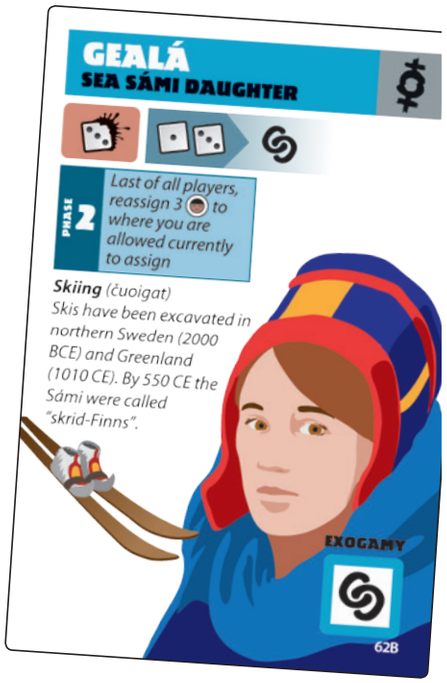
- **Full-time.** This is a *permanent assignment* **(E4)**, and he cannot later change ranks.
- **Community work.** You may place multiple elders on ranks marked with four dots (••••).

E4. PERMANENT ASSIGNMENT

An assignment as an Elder or Colonist, or becoming a Husband during a *Sabine Raid* **(E5)**, is a **permanent assignment**. Elders, Colonists, and Husbands are not returned as unassigned tribesmen during **Phase G**, and do not count as unassigned tribesmen (e.g. during decimations).

- **Exception**: If you begin this phase **(Phase E)** with one or no unassigned tribesmen, you may reassign one Elder, Colonist, or Husband as an unassigned tribesman, assuming you have the appropriate sleds/Mariners.
- **Colony Abandonment.** If you have enough unused Mariners **(E1)** to evacuate all your Colonists (leaving both Markland and Vinland empty of your Colonists), you may assign them to hunt or raid anywhere in Greenland **(Phase E)** and/or return them by *leaving* during **Phase F**.

E5. LIVESTOCK OR SABINE RAID[21] [ADVANCED]



To **raid** a D or daughter card in an opponent's tableau, assign a Raider to its card. This will be resolved in **Phase F** (see **F2)** and **Phase G** (see **G1)**.

- **War Chief.** You must have a rank 4 Elder to assign a Raider.

*You need a mariner or sled to raid a Tableau card that is not in your homeland (**E1**). So the Thule and Tunit don't need transportation to raid each other.*

Immune to Raiding. You cannot assign a Livestock Raider to a D card marked by the slashed medallion icon. You can never assign Raiders to steal I cards.

- **Guards.** You may also assign tribesmen to any of your daughter or livestock Tableau Cards, or to daughters you are married to, as **Guards** to defend them. This will be resolved in **Phase F** (see **F2)**.

You are not allowed to assign tribesmen to attack Husbands (in your tableau) or Elders.

E6. NAVIGATIONAL RE-ASSIGNMENT[22]

The Sun Stone/Sun compass card in your tableau allows you to reassign three of your tribesmen after everyone has assigned all their tribesmen. This reassignment must be to other biomes where you would be allowed to assign to this turn, including as Raiders or Guards. You must respect your *mariner limits* **(E1)**

- **Skiing.** Having Geala (skiing Sea Sámi daughter) in your tableau, or being married to her, gives you the same abilities as the sun stone. If the two ever conflict, the skiing ability moves last.

21 The term "Sabine Raid" comes from the tradition that Rome was founded by kidnapping Sabine women.

22 The only known Norse navigational tools are the sun stone and the sun compass. The transparent sun stone, made of Iceland Spar, has a remarkable light-polarizing property that can indicate the position of the sun even on a cloudy day. The sun compass illustrated was excavated from a Norse site in Greenland. It used the sun to determine north, and perhaps latitude.



Example: *Moving last, the Vikings place a Hunter on the muskox card in the Thule tableau. This livestock raid allows them to try to steal two babies that otherwise will belong to the Thule. The Thule use their sun stone import to re-assign two Hunters from two different biomes to the muskox instead. The fight between the Raider and Guards proceeds per* ***F2****.*

E7. THE ALPHA[23]



Each player starts with one **Alpha**. This is treated as a tribesman, except when used as a Hunter you have the option to consider its hunt roll to be ⚀, without actually rolling for it. You must decide to use this special ability before you make the hunt roll.

- **Feet of Clay.** If you are not using the Alpha special ability, you must announce this before you make the hunt roll and identify which dice represents the Alpha.

Note: *Feet of Clay" voluntarily deactives the Alpha special ability. It is automatically deactivated (so that the Alpha acts as any other Tribesman) in any activity other than hunting e.g. hunting metallurgy or raid biomes (**B1**), attacks (**F2**) or raids (**G1**). If the dice designated as his kills him off, he can be resurrected as your next new baby.*

Example: *You assign your Alpha to go fishing. Unless you choose feet of clay, he automatically rolls a ⚀, and this hunt is successful without rolling.*

F. NEGOTIATE & ATTACKS PHASE

During this phase, if you have one or more tribesmen on the same card as an opponent, you may open **negotiations** with him. You may ask him to leave peacefully, or volunteer yourself to leave. You may exchange disks, hand cards, or  or  cards in your tableau (the cards exchange tableaus), as well as offer daughters for marriage or make non-binding agreements about plays on future turns. [24]

23 For the Thule, the alpha is the whaling captain (*umialiq*), who commanded the 10 man open-topped whaling boat (*umiak*) and also presided over the ceremonies redistributing the whale meat and blubber. Today, the alpha is known as the *Greatcatcher.* For the Norse and Tunit, the alpha is often a trapper who provided unspectacular but steady food supply from the trapping of large and small game. *The Tunit made our country habitable. They built the lines of boulder cairns which guide caribou to the river-crossings where they can be ambushed by hunters, and they furnished the rivers with fish-weirs.* Netsilik Inuit, 1923

24 The *Greenland Saga*, written in the early 1300's, records what is one of the most momentous meetings in all of history, the first contact between East and West. According to Y Chromosome analysis, the two groups had separated in the in central Asia 50,000 years earlier. One group went West, and became the Europeans. The other group went East, and became the Amerinds. After each traveled halfway around the world, they were fated to reunite on Greenland. The meeting

- **Leaving.** Your tribesmen may **leave** during this phase only if all other players with tribesmen present allow you to leave. If a tribesman leaves, either return him to your unassigned tribesmen (so he can't do anything this turn), or else marry him to a foreign bride **(F1)**, if agreed to by the player holding the daughter card.
- **Divorce.** Your husbands may leave daughters during negotiations, becoming unassigned tribesmen.
- **Transportation.** If leaving a card outside your homeland, you are limited to 4 tribesmen per Mariner (even if the Mariner was used in a previous phase). The number of tribesmen leaving is unlimited if allowed to use sleds.

F1. EXOGAMY[25] [ADVANCED]



If agreed to during negotiations or as a result of a *Sabine Raid* **(G1)**, you can convert one of the Raiders into a Husband by placing it onto the exogamy box of a daughter card in a foreign tableau. This is a *permanent assignment* **(E4)**.

- **Abilities.** A daughter card shares her **abilities** (e.g. hunting advantages per **G2)** equally with the player who owns the tableau and the player who owns the Husband. This ability is conferred immediately.
- **Monogamy.** Only one Husband is allowed per daughter. Married daughters cannot be offered in subsequent negotiations.

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did not go well for future negotiations: *Toward the North, hunters have found some little people whom they call Skraellings; their situation is that when they are hurt by weapons their sores become white without bleeding, but when mortally wounded their blood hardly stops flowing. They have no iron at all; they use missiles made of walrus tusks and sharp stones for knives.* The "Skraelings" in this case seem to be the Tunits, although the Norse never learned to distinguish between the two.

25 Men do the hunting, women the gathering, roles rooted deep in our origins. But what role do women play in Greenland, with all hunting and no gathering? Norse women tended animals, churned butter, and gathered seaweed and seasonal crowberries. The Thule women sewed individually-fitted clothing and boat skins (and did the rowing in the larger "*Umiak*" boats!). In fact, the pivotal inventions that allowed the arctic to be inhabited is hay for the Norse and the needle for the Eskimo. But perhaps the biggest female role is to leave one's clan to marry elsewhere. Called **exogamy**, this is essential to prevent in-breeding, both of genes and ideas. The Thule practiced dual exogamy, or continual wife-exchange, both between clans and cultures. Moving into a foreign community requires pluck (I speak from personal experience, as I am the only American in the village where I live). My "Daughter" rules are not intended to represent woman as chattel to be drug home by Vikings (although that did occur), but in respect of the courage required to forge a multicultural melting pot community that continues to be the hope of our future.

- **Defending One's Wife.** For purposes of attack and defense, consider husbands the color of the tableau they reside in. They may only *attack* Sabine Raiders **(F2)**. If a Sabine Raid inflicts casualties, the owner of the resident tableau decides if the husband is killed or not. The Husband is always killed if the raid succeeds.

Warning: *If your Alpha becomes a Husband, your tribe loses its Alpha until the Alpha-Husband dies and is reborn.*

F2. ATTACK ROLL[26] [ADVANCED]

Your tribesmen must **attack** other tribesmen on the same card by rolling a number of dice equal to the number of your tribesmen present. Each player is allowed one round of attacks per card. Except for *War Parties* (see below), each ⚀ will kill a tribesman of the victim's choice.



Most Iron Order. For multiple attackers, go in *most iron order* (**A3**). That is, the player with the most iron disks rolls first and applies damage, then the next attacker, etc. You may distribute your hits among multiple defenders.



War Party. If you have a rank 4 Elder (War Chief), the group of Hunters that includes your Alpha is called a **War Party**. All the Hunters in a War Party, including the Alpha, achieve a hit if they roll a ⚀ or ⚁.



Re-rolls. For the purposes of an **attack roll**, the listed biome type (**B1**), as well as any bloody dice icons, are ignored and instead the medallion icon is used. If the attacker has a tableau card with the re-roll icon (e.g. imported weapons), he is allowed one re-roll of each attack dice of the value indicated.

- **Vengeful Husbands.** Your Husband and Guards defending one of your daughters is a War Party if a Husband is present. Roll for this War Party at the same time, for all the tribesmen including the Husband, even though the Husband is a different color than the rest.

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26 Even compared to the Vikings, the Thule-Inuit were an aggressive people. They used well trained militia with a designated military leader. They employed arrow volleys, with the victor as the one with the most archers or arrows (and often their victims were the Tunit, who had no archers). After the "rain of arrows", one-on-one combat commenced with caribou killing lances or sealing clubs. Surprise raids were undertaken on camps or villages when everyone was asleep or gathered at the community house. The doors were sealed and arrows fired through the smoke holes. Similar to the Norse practice of "Arson", they may set houses aflame and shoot those who flee. No prisoners were taken, as the goal of Thule-Inuit warfare was the complete annihilation of the enemy. Renee Fossett, *In Order to Live Untroubled: Inuit of the Central Arctic 1550 To 1940*, 2001.

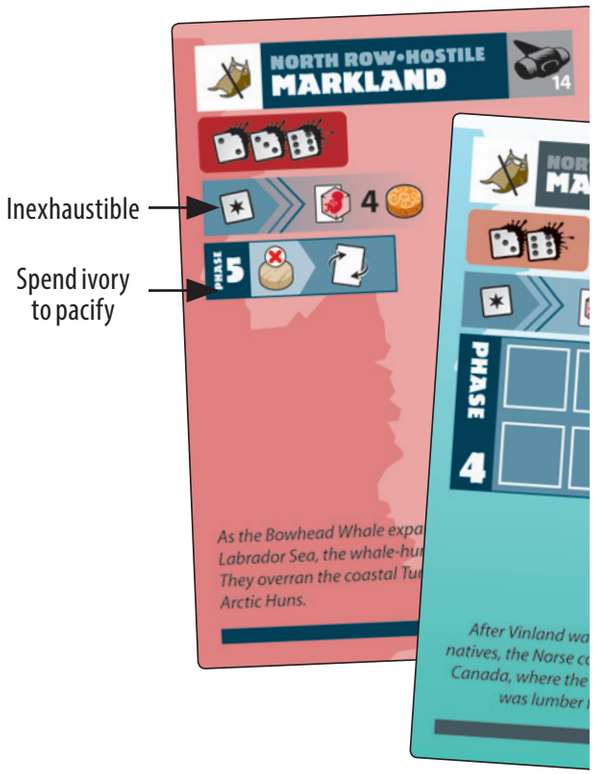
- **Pogroms (optional rule).** For each tribesman you kill in an attack, your victim may optionally kill one Elder or Husband of yours, if there are any in his tableau.

Note: *Elders on the same Placard never attack each other.*

Example: *In a Sabine Raid, there are 2 Thule Raiders and 2 defending Norse Guards. The Thule have more iron, and roll a [5] and [6]. The Thule have an imported sword, allowing him to re-roll the [6], which is a [1]. The Norse are down to one defender, who rolls a [3] and kills off one Thule. The surviving Thule rolls a [4] for his hunt roll in the next phase. This is a bloody dice which kills the last Raider and spoils the raid.*

F3. THE NEW WORLD TURNS HOSTILE[27] [ADVANCED]

If after negotiations and attacks, more than 6 Colonists are on a peaceful New World card (counting the colonists of all players combined), then flip it over to its hostile side (which has higher attrition). All Colonists remain on the card.





Pacification. If you have Colonists on a hostile card, you may pay one ivory during Phase 5 (Domestication) to flip it to its "Peaceful" (full color) side. However, if over 6 colonists remain on the card at the next **Phase F** (Negotiation & Attacks), it goes hostile again.

F4. THE IRON RULE [ADVANCED]



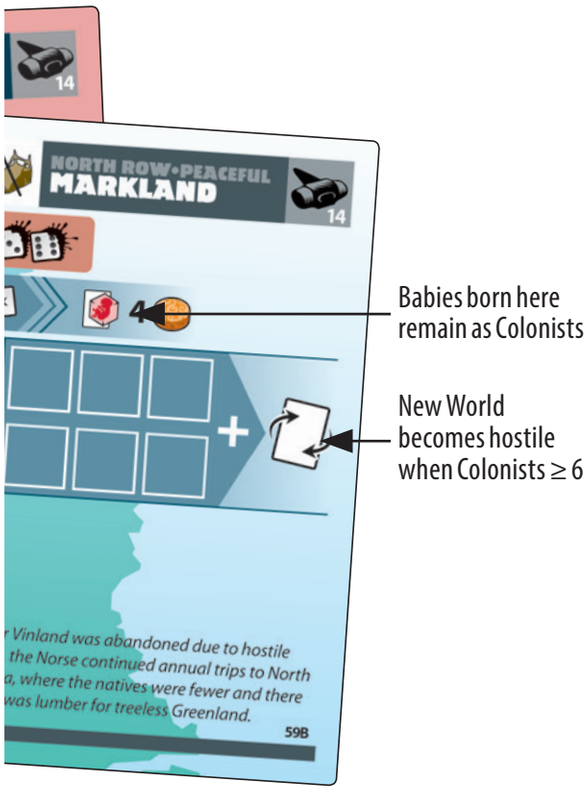
Before rolling for a hunt or before an opponent makes his attack roll against you, you can spend 1 iron to cancel out all casualties that result from the roll.

Example: *You have 5 hunters in Markland. You expend an iron before their hunt roll and the 5 Colonists remain in Markland instead of dying.*

27 Vinland was discovered by an expedition led by Leif Erikson, son of Greenland's founder Erik the Red. He brought back grapes and wood. The next expedition, led by his brother Thorvald, got off to a bad start when the Vikings killed eight natives they found sleeping under their skin-boats. One escaped, and the next day "countless" boats returned and showered the Norse with arrows. As the dying Thorvald pulled an arrow from his intestines, he reportedly said "*This is a rich land we have discovered; there is plenty of fat around my belly. We've found a land of plenty, although we'll hardy enjoy much of it*". Erik was devastated by the news and sent an unsuccessful expedition to recover his son's body. Had the Norse been a more diplomatic folk, perhaps America would today be known as "Leifland".

G. ROLL FOR HUNT (least Hunter order)

Tribesmen on a biome **(B1)** represent **assigned Hunters**. When it is your turn to Hunt (see **A4)**, make a hunt roll by rolling a number of dice equal to the number of your Hunters present. If the card is on the *warm side* **(D4)**, each ⚀ or ⚁ dice-roll is a hit. If the card is on the *cold side* (i.e. left of the draw deck), only ⚀ will hit. If your roll shows a number of hits greater than or equal to the number of dice shown in the upper left corner of the card, then it is successfully hunted (see **G4** for results of the hunt). After hunting, all of your surviving Hunters (except for colonists) are returned to your **unassigned tribesman pool**.



- **Biome Resolution Order.** Per **A4**, the first player determines which card is hunted first, second, third, etc.
- **Mandatory Hunt.** On your turn to hunt, all your assigned Hunters, Colonists, and Raiders must make a hunt roll (exception, see **G7)**. Often you do not need to roll for the Alpha, see **E7**.
- **Modifiers.** The hunt roll may be modified first per **G2** and then per **G3**.

Attrition. Hunting is dangerous. If the biome shows a **bloody dice**, any Hunter rolling that result (after all re-rolls) has been killed (eaten by a prey animal confused about the Hunter-prey relationship). You may use the *iron rule* (**F4**) to reverse your losses.

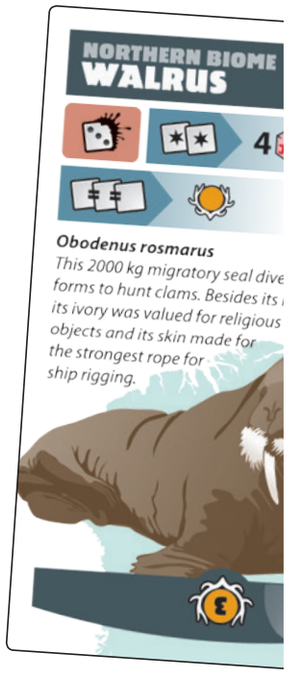
- **Competitive Hunt.** If there are Hunters of more than one player on a biome, the hunt goes in *least Hunter order* **(A4)**. The first player to succeed in the hunt gains the benefits, and all the other players go home unsuccessful (i.e. winner-take-all).

G1. SABINE OR LIVESTOCK RAIDS [ADVANCED]

Each Raider placed per **E5** makes a hunt roll, just as for any biome. If any of the Raiders roll one of the dice faces shown in the "success" field, the raid succeeds, assuming at least one raider survives *attrition* **(G0)**.

- **Livestock Raid.** If you successfully raid a Card, you steal the babies that normally would have gone to the owner during **H2**. The victim must still pay the *hay cost* **(H1)**. If you are raiding sheep, you may optionally steal an ivory instead of a baby. If raiding a card with an energy value, you may steal energy instead of babies.
- **Sabine Raid.** If you successfully raid a daughter in an opponent's tableau, place one of the surviving raiders in the *exogamy box* **(F1)**, killing off the previous husband if any. You gain the daughter's benefits immediately.

  Example: *Two Sabine Raiders roll a and a . One dies as a hero (since he was successful), and the survivor successfully marries the daughter.*



G2. RE-ROLLS DUE TO BIOME TYPES

If you have one or more tableau cards or Elders depicting a biome type with the **re-roll icon**, then you are allowed re-rolls of the indicated number for all hunt rolls in that *biome type* **(B1)**.

- **Binding Result.** Once you make a re-roll, its value is fixed and may not be re-rolled again.
- **Second Chance.** All re-rolls for a biome are made at the same time.

  Example: *While fishing for arctic char, four Tunit fishermen roll , , , . The Tunit shaman (an Elder) allows fishing re-rolls of , and their daughter Meeka allows fishing re-rolls of . The re-roll is a , , (The cannot be re-rolled). This fishing succeeds if warm side, but fails if cold side. The second cannot be re-rolled yet again.*

G3. HUNT MODIFICATIONS DUE TO INVENTIONS

If you have an Invention or Import in your tableau with a purple icon corresponding to the *biome type* **(B1)**, then dice showing the indicated number non-optionally become instead.

Example: *Your Hunter hunts elkhounds with a Tracker Elder and an imported crossbow. If you roll a , the Tracker allows you to re-roll it. If the re-roll is a , you may choose it to become a , which is successful.*

G4. RESULTS OF A SUCCESSFUL HUNT

If you successfully hunt a biome, first take *attrition* if any **(G0)**, then add the indicated number of **babies** (new tribesmen taken from Valhalla) to your unassigned tribesmen. You must add these babies if you have any available. You also get any disks specified (energy, ivory, iron). Unless you claim it as a *trophy* **(G5)** or take it into your hand **(G6)**, the card remains in the row.



- **If you run out of tribesmen or disks, see B4.**
- **Limits.** You are only allowed to gain the benefits of a hunted card once per turn, even if you roll multiple successes. For instance, if you roll three ⚀ when hunting a harbor seal, you get one baby, not three.

New World Babies. Babies born in Markland or Vinland become colonists instead of unassigned tribesmen (**E2**).

- **Warm Side Hunt.** If a card is to the right of the draw deck, both ⚀ and ⚁ are successful. This is different from weapons-use where numbers become ⚀ and count as ⚀ for all purposes. This distinction is important when determining if you rolled doubles, triples, etc. during *trophy-taking* **(G5)** or *domestications* **(G6)**.
- **Hunting Iron Mines.** Successfully hunting an iron biome gives you an iron disk. In the case of bog iron, if you succeed in the hunt roll you suffer one depletion event **(D3)** as indicated. If you can't or won't pay, the hunt fails.
- **Triumphant Return.** Successfully hunting a biome outside the New World returns all your Hunters on it to your unassigned tribesmen. All other Hunters on it are automatically unsuccessful and are also returned to the owner's unassigned tribesmen.

Example: *Two Thule and three Tunit are hunting dogs. The Thule, with fewer Hunters, go first and are successful with one hit. The Tunit automatically go home in disgrace. They cannot attempt to domesticate the dogs, for instance.*

Example: *(New World) The Tunit player has three colonists in warm side hostile Vinland. For the hunt roll, he rolls* ⚁, ⚁, ⚅. *Since the* ⚁ *are successes, he gains two colonists, two energy, and an iron. However all three original colonists perish, see* ***G0****. If he has the imported sword, he may re-roll the* ⚅. *He may also sacrifice the iron to save the colonists (****F4****).*

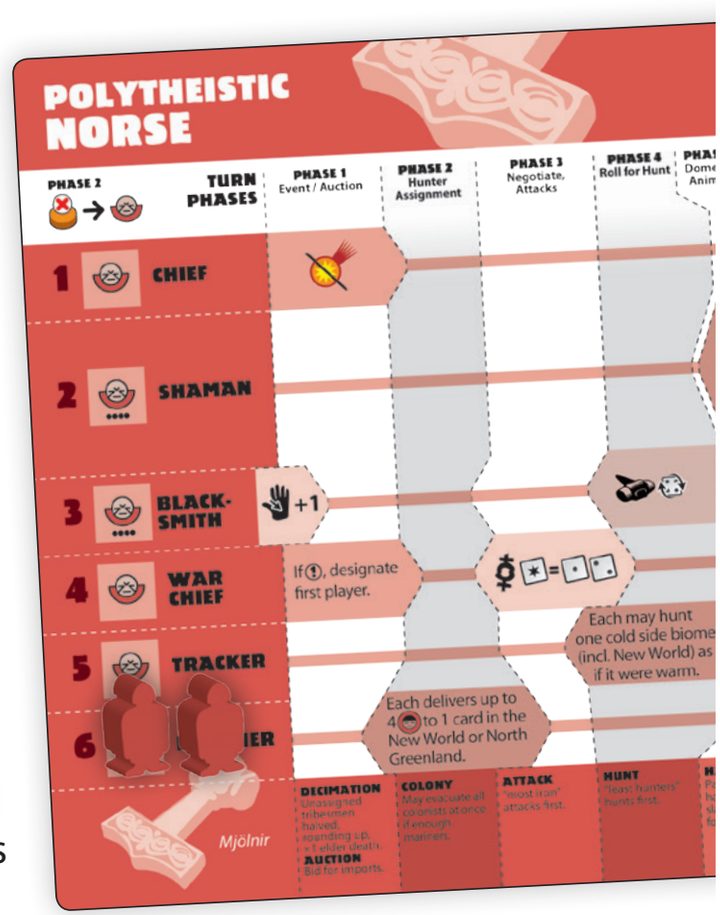
G5. TAKING TROPHY CARDS INTO YOUR TABLEAU[28]

The **antler icon** indicates a card that can be added to your tableau as a **trophy**. If it has 2, 3, or 4 blank dice on it, your hunt roll must include doubles, triples or quadruples to optionally add it to your tableau. Place it partly under your Placard rotated so the antlers are at the top.

- **A successful hunt is not necessary to claim a trophy.** For instance, if the trophy indicates doubles, any doubles (not just two ⚀) will claim the trophy.
- **Extinct.** The removed card has been over-hunted and is not replaced in the row **(G7)**.
- **Inventions and Domestications.** An I or D card always goes to your hand first (see **G6)**, never straight to your tableau as a trophy.

Remember: *Unless you choose "feet of clay" (**E7**), the Alpha is assumed to have rolled a ⚀, which can cause "snake eyes", "triple eyes", or "quadruple eyes" to have been rolled. Also weapons non-optionally cause certain dice-faces to be ⚀.*

Example: *Four walrus-Hunters roll a ⚀ and three ⚅. They have a daughter allowing ⚅ to be re-rolled. They could take this option and if the re-roll has one more hit the hunt becomes successful. But they instead opt not to re-roll, and use the triples to claim the walrus as a trophy.*



G6. TAKING I OR D CARDS INTO YOUR HAND [ADVANCED]

The hand icon indicates biomes that can be taken into your hand. If it has 2, 3, or 4 blank dice on it, your hunt roll must include doubles, triples or quadruples respectively to take it into your hand.

Doubles, Triples, etc. You may take the card into your hand even if your hunt roll was unsuccessful.

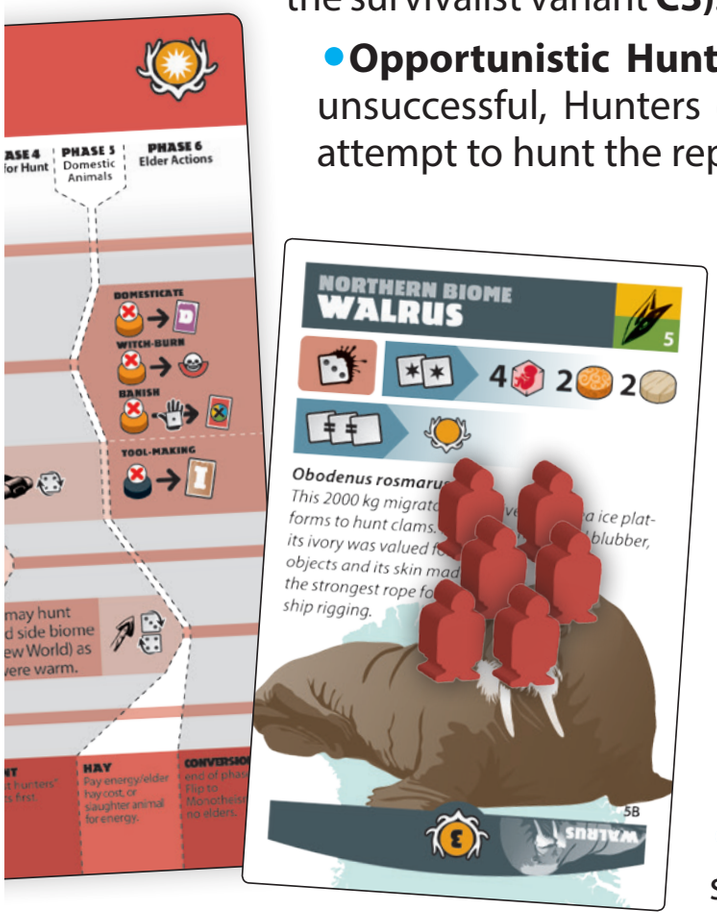
28 The "overkill hypothesis", championed by Dr. Paul Martin, proposes that Amerind trophy-taking hunters caused the Late Pleistocene mass extinctions in the Americas.

- **Full Hand.** cards can be taken into your hand even if your hand is full, but then you must immediately discard down to your *hand size* **(B2)**.

  Example: *An Alpha and two Hunters are hunting musk oxen. The Alpha is assumed to roll a* ⚀*, and both Hunters also roll* ⚀*. The hunt is a success, and furthermore because they rolled triples, they take the card into their hand. They may play it into their tableau during elder actions (**I1**). The oxen card is replaced per the biodiversity rule (**G7**).*

G7. THE BIODIVERSITY RULE

If a card is taken as a trophy **(G5)**, it is not replaced so the row now has one fewer card. If a card is taken into your hand **(G6)**, replace it in the same position with the top card coming from the draw deck of that row, so that the number of cards in the row is unchanged (unless playing the survivalist variant **C3)**. cards replaced by migration go out of the game **(D1)**.



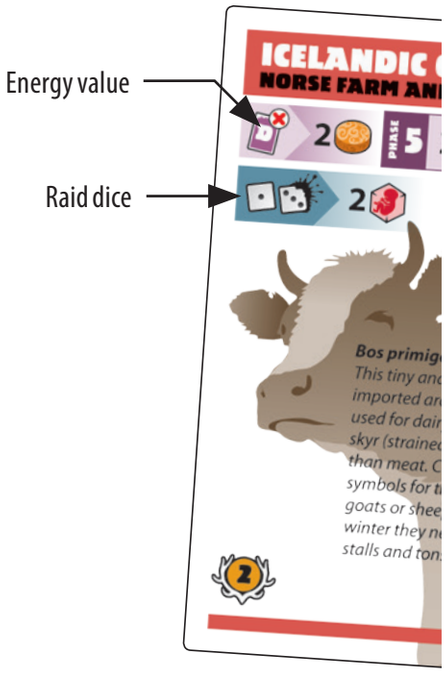
- **Opportunistic Hunt.** If a card is taken into your hand but the hunt was unsuccessful, Hunters of other tribes that were on this card may optionally attempt to hunt the replacement card.

G8. HUNT EXAMPLE

The Norse player tries to hunt the walrus biome in the cold side of North Greenland. This maritime animal requires two ⚀ to be successful. He is unopposed.

- **Phase E (Hunter Assignment).** At a cost of 2 energy, he promotes two Hunters to sixth rank Elder (mariner) to reach North Greenland. Then he places his remaining 6 unassigned tribesmen onto the walrus card as shown.
- **Phase G (hunt roll).** He rolls 6d6 for his six Hunters: ⚀, ⚁, ⚂, ⚃, ⚄, ⚅. Since he only rolled one ⚀, the hunt fails and moreover the walrus kills the Hunter who rolled the ⚂.
- **Wives.** If he has a Husband married to Kirima, then since this is a maritime hunt he is allowed to re-roll both of the ⚅. He needs one of them to be a ⚀ for the hunt to succeed, and it could result in more Hunter deaths.

- **Weapon.** If he has toggle-head harpoon technology,[29] the acts as a , resulting in hunt success (and saving the life of the Hunter). He gains 4 babies, 2 energy (blubber fuel), and 2 ivory. Since no triples were rolled, the walrus card remains in the row.



H. DOMESTIC ANIMALS (any order)

H1. HAY COST[30] [ADVANCED]

For each *depletion icon* **(D3)** on each card **(B2)** in your tableau you must expend either one energy disk or one Elder of your choice. You must pay this cost even if it has been successfully *livestock raided* **(G1)** this turn.

- **Slaughtering Animals.** To avoid paying the Hay Cost, or if you can't pay, discard the card. If it has an *energy value*, obtain these disks per **B3**.

H2. MILK AND SKYR[31] [ADVANCED]

Unless a card has been successfully *livestock raided* **(G1)**, you gain the babies indicated. You do NOT need to assign any tribesmen or roll any dice to gain the babies.

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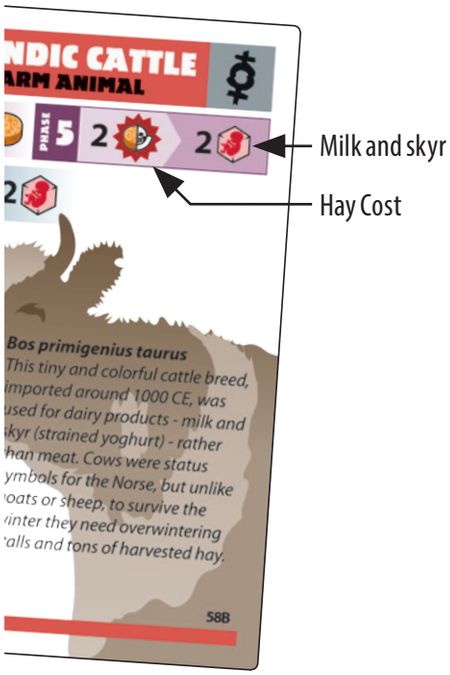
29 About the same moment as the Norse landed in Greenland, an unknown Thule genius in Alaska adapted sealing and boating technology to made the first open ocean whaling hunt. The Thule used this tech to spread eastward across the Arctic, reaching Greenland in the late 12th century. The Thule whaling and sealing harpoon was the most technologically advanced weapon in the world at the time. Among its 22 parts are the bone toggle-head (swivels to prevent extraction once under the skin), an ivory foreshaft and bone socketpiece held by thongs (allows detachment from the wooden shaft), a bone counterweight held by pegs at the base of the shaft, and a harpoon line attached to a bone clasp and peg. Two sealskin floats, joined by a piece of wood to fit over a strap across the rear decking of the kayak, were linked to the harpoon line by a toggle. The harpoon was launched by an atlatl made of wood with bone insets. Wendell Oswalt, *Eskimos and Explorers,* 1979.

30 *Nobody knows who invented hay, the idea of cutting grass in the autumn and storing it in large enough quantities to keep horses and cows alive through the winter. All we know is that the technology of hay was unknown to the Roman Empire but was known to every village of medieval Europe. Like many other crucially important technologies, hay emerged anonymously during the so-called Dark Ages. According to the Hay Theory of History, the invention of hay was the decisive event which moved the center of gravity of urban civilization from the Mediterranean basin to Northern and Western Europe.* Freeman Dyson, *Infinite In All Directions*, 2004.

31 Skyr is a traditional Icelandic and Greenlandic strained yogurt drink. Dairy products were highly valued by the Norse, and were useful trade items with the Amerinds. In his book *Collapse, How Societies Choose to Fail or Succeed*, Jared Diamond argues that the Norse over-valued their dairy animals in Greenland, causing destruction of sod and the subsequent



- **Icelandic Waterproof Wool.** The sheep D card allows you choose whether to gain a baby or an ivory.
- **Pacification.** During this phase, you may spend an ivory to pacify a New World card as per **F3**.

I. ELDER ACTIONS PHASE (polytheists first)

Each player may perform the following **elder actions** if he has one or more Elders in the specified rank and pays the resource cost indicated. Each Elder can perform one action per turn. An Elder is not expended by performing his action.

- **Sequence.** All polytheist players perform actions first (in *player order* per **A2)**, then all players that begun the turn as monotheists (also in player order). You choose the order that you play your actions.

I1. DOMESTICATION (RANK 2 ACTION, POLYTHEISM)[32] [ADVANCED]

Expend one energy and play one D card in your hand into your tableau alongside your daughter cards.

- **Orientation.** When moved to your tableau, both D and I cards are rotated 180° so the purple text reads upright.
- **Once you convert to monotheism, you can no longer domesticate**!

I2. WITCH-BURN (RANK 2 ACTION) [33]

Expend one energy to kill an Elder of your color in your tableau. All killed Elders go to Valhalla.

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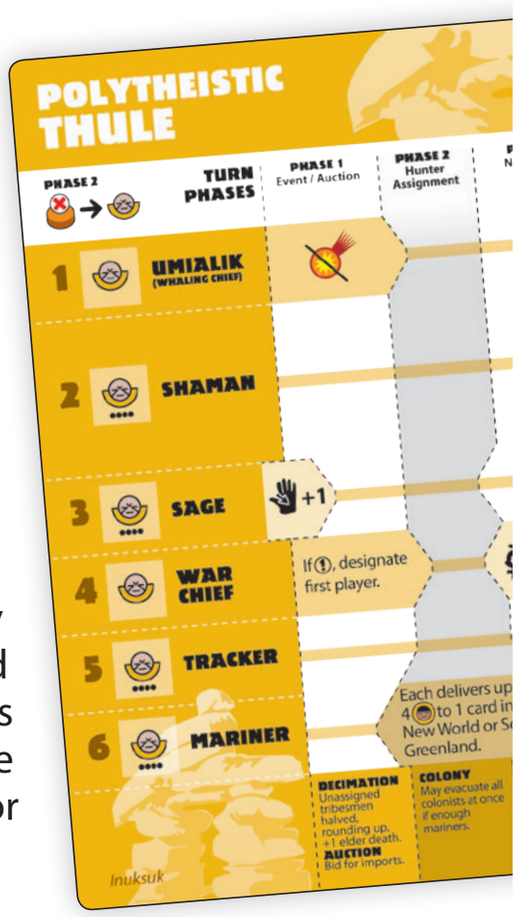
erosion doomed the Greenlanders.

32 Almost no animal domestications have occurred since the onset of Christianity. Reindeer pastoralism seems to be the most recent in the world, ca. 1500-1800 judging from haplotype shifts in archeological studies of reindeer bones. This is contemporaneous with initial attempts to Christianize the Sami, beginning with the Russian monk Tryphon, who in 1533 established the Pechenga Monastery in Lapland.

33 The very last message from Norse Greenland chronicles a man burned for seducing another's wife using witchcraft. Witches were (and are) dangerous to Christianity because they represent a reversion to polytheism, the practice of following personal authority figures instead of a central one. Rather than a competing belief system, witchcraft is a method of coming to decisions that predates modern consciousness, i.e. the language-based method of decision-making by acting out alternatives based on mentally manipulated constructs. Under this theory, witches are throwbacks similar to schizophrenics who hear voices, religious mystics, those "possessed" or "speaking in tongues", and children with imaginary friends.

Example: *(self-immolation) You have one last Elder (rank 2). During elder actions, you perform a witch-burn on this Elder, and then use baptism (**I7**) to convert yourself to monotheism.*



I3. BANISH (RANK 2 ACTION, POLYTHEISM) [34]

Expend one energy and then make a Martyr Roll to attempt to kill an opponent's Husband or Elder from your tableau. The Elder can be either a *Missionary* or a *Representative* **(I5)**.

- **Martyr Roll.** Roll a number of dice equal to your maximum *hand size* **(B2)**. For each ⚀ rolled, you kill off a Missionary, Representative, or Husband.
- **Special Rule for Norse Husbands.** Player Red Husbands are immune to banishment, but are otherwise treated as if they are in the foreign tableau. This means they can be removed from a daughter only by negotiation or Sabine Raid. This reflects the celebrated Viking custom of stealing women (so that the exogamy is actually in the Norse camp, out of reach of Thule or Tunit bishops/shamans).[35]

I4. TOOL-MAKER (RANK 3 ACTION) [ADVANCED]

Expend one iron and play one  card in your hand into your tableau, alongside your daughter cards.

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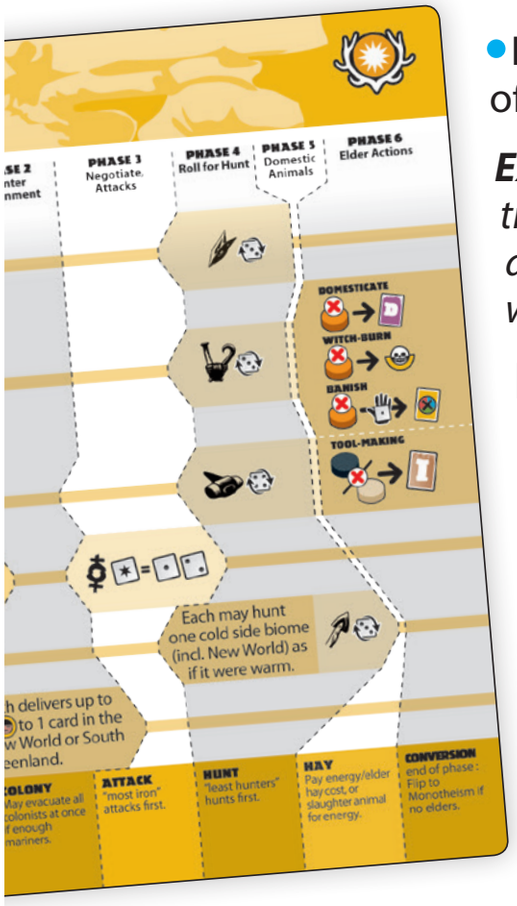
34 The rank 2 Elder is a spiritual figure known as **shaman**, i.e. one who enters an altered states of consciousness similar to that employed by all humans before the dawn of consciousness. Shamans were common in the Tunit culture, employing ritual, rhythm instruments, or drugs to enter a trance during which divinations were uttered (interpreted as advice from benevolent and malevolent spirits).

35 Although slaves were taken by the Thule and Norse cultures, slavery was not very significant in Greenland. In fact, the slaves taken to Greenland by the Vikings were freed within a generation. My interpretation is that slavery as an institution is an immoral luxury and a waste of manpower that cannot be afforded on the frontier. Slavery as defined as one man under force to serve the interests of another, could not exist in the bicameral era, when everyone was a slave to the gods in their heads, and disobedience was not yet invented. Slavery likely got its start when parts of the population became conscious, just imagine how Cortez and Pizarro enslaved entire bicameral civilizations. For a Hollywood comedic depiction of one man conscious in a bicameral world, watch *The Invention of Lying*.



- **Ivory Carver.** The Tunit have the option to expend an ivory instead of an iron.[36]

Example: *You have the slit goggles invention in your hand. You promote a tribesman into a rank 3 Elder (costs one energy) and use him during elder actions to put the goggles card into your tableau (costs one iron). It is now worth victory points and you can use its abilities.*

I5. EMISSARY (RANK 5 ACTION, MONOTHEISM)

Expand an energy and move one of your rank 5 Elders to the first rank of an opponent's Placard. The Elder is now called a **Missionary** if it sits on a polytheist Placard or a **Representative** if on a monotheist Placard. Missionaries are useful to forcibly convert your opponent to *monotheism* **(I6)**, and having at least one Representative gives you extra VP **(J0)**.

- **Diplomatic Chief.** An emissary gains the rank 1 anti-feud ability shown on the Placard they reside in. An Emissary (Missionary) to the polytheistic Thule gains the maritime hunt re-roll shown.

I6. PROSELYTIZE (RANK 2 ACTION, MONOTHEISM)[37]

If you have a rank 2 Elder plus at least one Missionary in the first rank of an opponent's polytheist Placard, expend one energy and make a *martyr roll* **(I3)**. Any ⚀ will permanently convert that opponent to **monotheism** at the end of this phase (flip the card over, preserving

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36 According to the bicameral theory, the importance of art today is a vestige of a period when art such as music, poetry, and statues was even more important. This period was not the bicameral era, when all members of society unquestioningly followed the internal voices of their gods. It was rather the transitional period when the voices stopped coming, and the terrified populace needed drugs, chanting, and hand-held idols to induce the gods to instruct them again. This crisis, the sound of silence, was more likely caused by the increased use of self-referential language rather than natural selection. The Thule and Norse art was rather sparse and functional, without elaboration or embellishment, and these cultures were unquestionably conscious. But the plentiful Tunit statuary, featuring "flying bears" (shown on the top of the Tunit Placard), standardized carvings of humans without faces and with stump arms, and realistic ivory bird-women able to stand upright, is evidence that this culture was transitioning to consciousness. Whatever you think of this theory, I have never heard an alternate explanation for the uniquely human fascination with hallucinogens, alcohol, rhythm, music, and idols. Julian Jaynes, *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, 1990.

37 All three cultures were polytheistic when they invaded Greenland. Erik the Red's son Leif converted to Christianity in 999 CE, and soon Greenland was officially Christian under a bishop. Only one Norse pagan artifact has been discovered in Greenland, a soapstone carving depicting Thor's hammer. The Inuit became Christian in the 1750's under Moravian Mis-

the position of all Elders, including Missionaries).

- **Limits.** You can only proselytize if your Missionary has been in position since the beginning of the turn. You may use the same Missionary for multiple attempts, see the example below.

  Example: *You are Christian and have three rank 2 Bishops and two rank 5 Acolytes. As emissary actions, you spend 2 energy to move both of them to your foe's Placard as rank 1 Missionaries. During the next turn's elder actions, because your opponent is polytheist, he goes first. He uses his Shaman to try to banish your Missionaries, rolling a* ⚀ *and a* ⚁*. One of the Missionaries dies. During your actions, your three Bishops each expend an energy and each uses the surviving Missionary for a proselytize attempt. Your hand size is one, so you roll one dice in each attempt.*

I7. BAPTISM (VOLUNTARY CONVERSION, POLYTHEISM)[38]

Your Placard is double-sided. It starts on the polytheism side, but during your elder actions Phase where you have no Elders of your color, you have the option to permanently switch it to the monotheism side, for no resource cost. This changes your *Victory Conditions* **(J)**.

J. GAME END & VICTORY

The game ends at the end of the last turn of the event deck, or at the end of a turn where no warm or cold cards remain in either row. Count up the following Victory Points (VP):



Trophy VP (polytheism only). Each card with a *trophy icon* (**G5**) in your tableau lists the VP it is worth. Note that if you end the game monotheist, your trophies remain (trapped as pagan vestiges in your tribe's monotheistic sect) but are not worth any VP.

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sionaries. The Tunit died out before any Missionary could decipher their tongue.

38 What difference does it make if a culture believes in one god or many? According to the bicameral theory, when humans acquired consciousness, they interpreted the running stream of thoughts and voices in their head, including the hallucinated admonishments of dead authoritative figures, as a panoply of gods. This was natural, since this was the way they unconsciously came to decisions before the advent of self-reflective consciousness. These gods were personal and subjective authority figures. However, to build a society requires adherence to objective values and authority figures, including an ultimate central authority, the one and true God. A central authority leads to objective morality, such as the 10 commandments, and Missionaries to spread truth to alien cultures, concepts incompatible with a system of subjective values. Thus Judeo-Christianity spread with astonishing rapidity throughout the world.



Resource VP (monotheism only). Each ivory is worth 1 VP, and each iron is worth 2 VP. You may convert cards in your tableau with an iron or ivory value per **B3** towards your VP. Note that if you end the game polytheist, these are not worth any VP.

- **Population VP.** Each of your tribesmen not in Valhalla count as 1 VP. If a New World card ends the game on the cold side, each colonist on it counts as 2 VP.[39]
- **Democratic VP.** Any player with one or more *Representatives* **(I5)** on an opponent's Placard receives 4 VP per occupied Placard at the end of the game (for being a member of the special Greenland Parliament called The Thing).[40]
- **Ties.** If tied in VP, the player with the most iron wins. Otherwise it remains a tie.

Example: *At the end of the game, South Greenland is entirely on the cold side. The polytheistic Norse bagged a shark, so 5 Trophy VP. They have four unassigned tribesmen, one Elder, and three Vinland Colonists, so 11 population VP since the Colonists count double. Their total score is 16 VP. The monotheistic Thule have 2 iron and 2 ivory = 6 Resource VP. They also have 11 unassigned tribesmen and 5 Elders, including a Representative on the Tunit Placard which grants 4 extra VP. This is 26 VP altogether. The monotheistic Tunit have 5 iron, 2 ivory, and 12 tribesmen not in Valhalla = 24 VP.*

Tip: *If your opponent has an overwhelming lead in trophies, consider becoming monotheistic and sending Missionaries to baptize him. If the other losing player becomes monotheistic, you both can gain 4 VP with Representatives on each other's Placard.*

39 This rule reflects the possibility that the Greenlanders could have colonized the American heartland had the Little Ice Age deepened into another glacial period of our present Ice Age, with an ice sheet covering most of the present USA and Canada.

40 No, *The Thing* is not an arctic Hollywood chimera fusing sled dogs with your mother-in-law. Norse Greenland was organized as a loose federation of chiefdoms operating under feudal conditions, with a market economy based on barter and a walrus tusk currency. To reduce the enormous social toll exacted by clan feuding, a legislative and judicial assembly called *"The Thing"* was established. The Thing died with the Norse in Greenland, but in Iceland it survived and is today the oldest Representative parliament extant.

J1. EXTINCTION

If your tribesmen are all sent to Valhalla you score no points and are out of the game, leaving only cultural artifacts to be discovered during the next global thaw. Your married daughters remain in place, however.[41]

K. SOLITAIRE VARIANT "THE DAUGHTER'S SAGA" (by Jon Manker/Phil Eklund)

The male hunters may have brought home the bacon, but many of the lasting decisions and ambitions were set by the women. In this variant you take on the role as one of the 10 daughters included in the game. Your goal is end the game with at least three Matriarchs (ruling class leaders of your dynasty). This variant is played using *survivalist rules* **(C3)** with the exceptions noted below.

- **Daughters & Matriarchs.** Your unassigned tribesmen, Alpha, and Elders start as your tribe's color as normal. However, these are the males. Your player color are the females, which are the meeples of another color. These can either be **daughters** (if unassigned or assigned to a hunt per **K4)**, or **matriarchs** (if promoted to become an Elder per **K6)**.

K1. SETUP

- **Culture.** Choose one of the 10 daughters randomly. This sets your culture and player color.
- **Setup** Greenland as per normal **(C)** with 10 random event cards and your culture as the only player tableau, with tribesmen of an unused player's color (blue unless starting as the Sea Sámi) representing your daughters. Start with 2 blue daughters, placed on your daughter card.
- **Elders.** All 6 Elders start as males, but this can change during the game.

41 After the starving Western Settlement was overrun around 1350 (cutting off access to ivory), and the last royal trade ship sank in 1369, the King of Norway lost interest in Greenland. There are records of private ships "accidentally" landing in the Eastern Settlement in 1381, 1382, 1385, and 1406. The captains claimed to have been "blown off course", to avoid prosecution for going around the Royal Monopoly. The 1406 privateer brought back the last written Norse record of a 1408 wedding in Hvalsey Church. In 1607 a Danish-Norwegian rescue operation was launched. Besides being at least a century too late, they made the reasonable assumption that the Eastern Settlement lay on the Greenland's east coast, and thus looked in the wrong place. The Inuit they met were assumed to be descendants of the Norse. The actual fate of the last Greenland Norse is unknown, but it is conceivable they could have made a desperate attempt to settle in Vinland.

Example: *You are assigned the Viking daughter Birgitta. You start with 5 red meeples (plus your Alpha) and 2 blue meeples representing your daughters.*

K2. EVENT

The first event of the game is ignored. Simply do the auction, if any.

Events have additional effects as indicated:

- **Decimation (D2).** Daughters count a toward your population. If you lose population during this event, the Elder lost must be one of your matriarchs, if possible. Furthermore, half of the remaining matriarchs (rounding up, so not in your favor) turn into normal Elders.
- **Energy/Elder Depletion (D3).** If any Elders (but not matriarchs) are forced into the snow (lost because of insufficient energy), then for each one lost you must lose either 1 matriarch or 1 daughter.
- **Elder Die-off.** If you have a **chief matriarch** (rank 1), you choose which Elder dies, instead of rolling for it. However, you must choose one Elder to die (e.g. you cannot choose a missing Elder to die). You can altruistically choose the chief to die.
- **Auction.** All items on the trade ship cost 2 ivory, or 1 ivory if you are Peepeelee or Birgitta.

Example: *The hunt row is South Greenland. You have no tracker matriarch, so you roll 1d6. It is a "5", so you count 5 cards over from Vinland. The South Row only has 4 cards on the warm side, so the roll indicates the leftmost card on the cold side is the one chosen. But if you had a tracker matriarch, you could choose a number of cards in the South Row, and divide up the hunters as you choose.*

K3. DETERMINING HUNTING GROUND

- **Hunt Row.** If you have a **hunt chief matriarch** (rank 4), you may designate the **hunt row**. Otherwise it is random: 1, 2, 3 = home row, 4, 5, 6 = non-home row (if you have the means to go there, otherwise your home row for the extras). All your hunters (including the Alpha) must hunt in this row, except for hunters reassigned by shaman, artisan, or mariner matriarchs **(K4)**.

- *** Hunt Biome.** If you have a **tracker/acolyte matriarch** (rank 5), you may decide which biome or biomes in the hunt row to hunt. Otherwise, determine the biome by rolling one dice and counting cards starting with the first to the right of the New World. Skip gaps, and re-roll if the roll is higher than the number of cards.

  Example: *The hunt row is South Greenland. You have no tracker matriarch, so you roll 1d6. It is a "5", so you count 5 cards over from Vinland. The South Row only has 4 cards on the warm side, so the roll indicates the leftmost card on the cold side is the one chosen. But if you had a tracker matriarch, you could choose a number of cards in the South Row, and divide up the hunters as you choose.*

K4. HUNTING REASSIGNMENTS

- **Domesticable Animals.** If you have a shaman matriarch (rank 2), you may reassign any number of hunters to attempt to hunt a domesticable animal in your home row.
- **Inventions.** If you have an **artisan matriarch** (rank 3), you may reassign any number of hunters to attempt to hunt inventions in your home row.
- **New World.** If you have a **mariner matriarch** (rank 6), you may assign any number of hunters to go to your choice of Markland or Vinland. You may also move colonists from Vinland to Markland or vice versa.
- **Alpha.** If you have a **hunt chief matriarch** (rank 4), you may reassign your Alpha anywhere.
- **Assign Daughters.** After all hunters are assigned, you may assign daughters to the hunts as well (but not in the New World). You may only assign one daughter per biome. These daughters do not participate in the hunt, and are only there to indicate the hunters they have chosen as their husbands, in order to bear the babies generated **(K5)**.
- **Promote Daughters as Elder.** Apart of a promoting a Hunter as an Elder, you may promote a daughter. This Elder, called a **matriarch** is distinguished from the males by being blue (or other color if you are playing sea sami).

Note: *You may never assign your last daughter as matriarch. You always have to have at least 1 daughter left for assignment to hunts.*

K5. ROLL FOR HUNT

- **Baby Daughters.** For every baby generated by hunting a biome with a daughter present, additionally add a new baby daughter of your color (e.g. a blue meeple taken from Vahalla). Place these on your daughter card.

  Example: *You assign 5 hunters and 1 daughter to fish for Hooded Seal. You are successful, generating 2 baby tribesmen and 2 baby daughters.*

K6. ELDER ACTIONS

- **Emissary, Proselytize and Banish are not available as elder actions.**
- **Witch-Burn.** You no longer need a Shaman (or any Elder) to perform this. However, instead of spending 1 energy to kill an Elder, you must expend an amount of energy equal to the number of matriarchs you have.

K7. SCORING

The game ends per **J**. Score your points as you would according to the normal rules, except that you must have at least 3 Matriarchs to win.

L. CO-OP VARIANT (ALSO PLAYABLE SOLO) - "NAZI GREENLAND" (1 - 4 players, by Jon Manker/ Phil Eklund)

The inspiration to "Nazi Greenland" comes from some seemingly unrelated facts in the history of Greenland, a saga so strange you may think I am making it up:

Cryolite. The Norse in the Middle Settlement of Ivigtût must have noticed a strange glassy mineral that disappeared when dropped in water. What they did not know was that they had settled on the world's only significant source of cryolite, a substance so rare that when the Ivigtût mine played out in 1987, cryolite became the world's first mineral exploited to extinction. The Vikings were literally sitting on a gold mine. The only problem: cryolite had no known use.

The Little Ice Age (LIA) that likely made the Norse abandon Greenland also made rescue expeditions sent in the 17th and 18th centuries unfruitful as they were driven back by pack ice, scurvy, and mutiny. Back in Europe, the polity of Denmark-Norway still claimed Greenland, despite the loss of contact with her colonies. In 1733 a small mission and whaling

post were established, but the Instruction of 1782 banned attempts to urbanize the Inuit or disrupt their way of life with the sale of luxury items. Still, Greenland remained an isolated protectorate until World War 2.

A Semi-Precious Metal. But let's not skip to World War 2 just yet. In a lecture in Oberlin Ohio, around 1883, Professor Jewett unveiled a sample of a remarkable shiny metal he had obtained from a German chemist. This was aluminum, at the time more expensive than gold, silver, or platinum. Its expense comes not from rarity - aluminum ores are among the most common in the earth's crust - but because refining pure aluminum required very high temperatures and consumed expensive materials. Professor Jewett remarked that if anyone unlocked the secret to refine aluminum cheaply, he would be a great benefactor to the world, as well as amass a great fortune.

A Gifted Student. In the audience was the student Charles Hall, only 17 years old. Using a homebuilt backyard oven, within 5 years he discovered that aluminum could be electrolytically refined using as a catalyst a strange mineral from Greenland. Hall went on to found the Alcoa company, and (as predicted), made a vast fortune, all of which he donated to charity. And by the First World War, Germany was producing aeroplanes and Zeppelins built entirely of cheap Alcoa aluminum. This strong, lightweight, and corrosion-free metal would prove to be the ticket to conquer the air and outer space.

Greenlander Resistance. Denmark capitulated to Nazi Germany in April 1940, making Greenland an unoccupied territory of an occupied nation. Suddenly, the island was up for grabs, with the USA, Britain, Canada, Norway, and Germany all contenders. Local hunters, both Inuit and Danish, formed a Sledge Patrol to keep the Nazis from landing and seizing the cryolite mines. The patrol stumbled across a secret Nazi weather station on Sabine Island, and managed to escape and report back to their base at Eskimonaes despite loss of their dog teams. Eskimonaes was then destroyed by the Nazis, but the team made a 650 km trek to safety without sleds, food or equipment. These stories of survival by the Greenlander Resistance form the inspiration for this variant.



The cryolite mine in Ivittuut, photographed in 1940 (public domain by USCG)

L1. A SURVIVALIST GAME

The players use the traditional Greenlander tribes to represent multicultural dog sled teams and ski troops guarding the coasts of Greenland. The supply ships now represent black market marketeeers from the USA and Canada. The game starts in 1937 and continues up to 1945, with each turn lasting a year. You play the game using the *survivalist game* **(C3)** as modified by the following rules:

L2. SETUP

Set the game up per (C) but:

- **North & South Rows.** Set all biomes, including Markland and Vinland, on the cold instead of warm side. Set Markland and Vinland closest to the draw deck. The first card after Vinland in the south row should be bog iron (biome #23). Randomize the rest.
- **Starting Orange Disks.** Players only get 4 energy in the starting setup.
- **Religion.** All players start on the Monotheist side.

- **Nazi Oil Depot.** Set 3 energy tokens per player aside in a pile to represent the Nazis. If you are playing solo the Nazis get 8 energy. All players are restricted by woodpile limits, but the Nazis are unlimited. If the Nazis pile grows there will be less left for the players.
- **Event Deck.** The Event deck should have 8 cards instead of 10. (If you want to increase the difficulty of the came you may decrease the number of cards in the event deck)

L3. EVENTS (PLAYER ORDER)

- **Global cooling**: This event is reversed into global warming instead. For each one, move 1 north and 1 south card to the warm side, starting with Markland and Vinland.

Note: *The second warming will include the Bog Iron biome = the cryolite mine.*

- **Venereal Disease Decimation.** (). This event now causes a *Goebbels propaganda blitz* **(L8)** for the two player colors listed instead of venereal disease.
- **Auction**: All imported goods have a fixed price of 2. You pay pay using ivory or iron disks in any combination. If there are no trade goods on a turn, assume they were sunk by U-boats.

L4. HUNTER ASSIGNMENT PHASE (PLAYER ORDER)

- **There are no negotiations or attacks.** Except in the New World, players are not allowed to hunt the same biome.
- **Homeland restrictions still apply.** You play parts of the Greenland society located in the north or south.
- **Ski Troops.** A player married to Gealá (Sea Sámi daughter) has access to *sleds* **(E1)**.
- **Elder Promotion.** You are allowed to promote elders to the placard of other players at normal promotion cost.
- **Permanent Assignments (E4) are permanent.** No exceptions, including no colony abandonment.

- **Each Starting Daughter Represents a Village under Nazi Control.** As long as a daughter remains unmarried, she remains a Nazi prisoner and her abilities are unavailable.[42] Any player with a war chief (rank 4) can assign a *sabine raid* **(G1)** to wrest control from an unmarried daughter. If successful, signify this by placing your Husband meeple.

L5. ROLL FOR HUNT (LEAST HUNTER ORDER)

With your sledge patrols, you are responsible for bringing home food while harassing the Nazis.

- **Nazis Everywhere.** The Nazi menace is simulated through increased attrition. In addition to any other dice icons on every biome, including the New World, you must also include two bloody dice, one with a 3 and the other a 6 (unless it is already depicted). This means that in every hunt roll, all dice that show a 3 or a 6 (after potential re-rolls) will kill off 1 tribesman.
- **Commandos.** In each hunt roll, each 2 rolled will steal one energy from the Nazis if the tribe has a bishop elder (rank 2, who represents the spiritual resistance).
- **The Bullet Rule.** Iron represents ammunition. You may spend 1 iron prior to rolling for a hunt. If you do, your Commandos becomes armed and dice results of both 2 and 3 steals one energy from the Nazis. (3's still kills hunters, which represents that the fighting becomes more fierce when using guns).
- **Alpha Sappers.** Because this is a *survivalist game* **(C3)**, each Alpha automatically rolls a 2 instead of a 1 in hunting. This means that they are useless as hunters as the game begins, since all biomes are on the cold side. However, they are great at sniping off Nazis. Think of them as sappers who will become better as hunters as Greenland gets warmer.
- **The Cryolite Mine.** The Nazi's prime concern is the cryolite mine. Each turn you fail to successfully hunt the bog iron, the Nazis receive 4 energy from the pool.

L6. DOMESTIC ANIMALS (ANY ORDER)

Farm animals confer benefits and cost energy during this phase as normal.

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42 This rule was inspired by "Red Tide Rising", a novel by Tom Clancy of the ficticious occupation of Iceland by the Soviet Union.

- **Instant domestication.** If you manage to domesticate an animal, place it in your tableau immediately. No elder action needed.

Note: *There are no Livestock Raids (**G1**) allowed in this variant.*

L7. ELDER ACTIONS (ANY ORDER)

- **Trade market**: At the start of the elder actions phase **(I)**, players may trade ivory, energy, and iron in any combination they want. This is the only time they may trade.
- **Forbidden Elder Actions.** Proselytize, witch-burn, domesticate, baptism, and banish are not allowed.
- **Emissary** is handled during *hunter assignment* **(L4)** since during this phase you may promote an unassigned tribesman to an Elder on any player's placard where *community work* **(E3)** is allowed.

L8. GAME END AND GOEBBELS PROPAGANDA BLITZ

The game ends when an event card cannot be drawn because the events are empty. This causes the final event, a *Goebbel propaganda blitz*.

- **Goebbels Propaganda Blitz.** If you suffer this event, you must roll a number of dice equal to the number of unmarried daughters you have (represents villages still occupied by the Nazis, see **L4**f). It does not matter to whom they are married. You still roll 1 dice if you have no villages liberated.
- **Surrender.** Take the lowest number of the dice faces rolled. If this is higher than your *hand size* **(B2)**, then you surrender to the Nazis and are out of the game. However, each Elder that you have of your color on your placard increases your hand size by one.
- **Surrender Effects.** You have all lost the game.

L9. VICTORY CONDITIONS

At the *end of the game* **(L8)**, you need to achieve at least two of the three following conditions:

- **Modern Greenland Victory.** To evolve into a modern independent nation, each culture on Greenland needs to have at least 1 unassigned tribesman and 2 Inventions or Imports in their tableau.

- **US Intervention Victory.** Instead of taking the fight you may flee the country and leave the Nazi hunting to the USA troops. Each culture needs to end with at least 6 tribesmen in the New World.
- **Nazi Defeat Victory.** If the Nazis are now out of energy, they evacuate the island and its cryolite mine.[43]

43 MODERN GREENLAND. Miraculously, Denmark retained control of Greenland after the war. The opening of trade and establishment of airports brought a sense of cosmopolitan self-reliance to the inhabitants. In 1979 Greenland was granted home rule, and in 2008 Greenlanders voted in favour of the Self-Government Act. Today, the Danish government retains control of foreign affairs, defence and monetary policy, and provides an annual subsidy of DKK 3.4 billion, which is planned to diminish gradually over time. Greenland remains one of the most heavily socialized nations in the world.

M. GREENLAND SCENARIO MODULE (by Jon Manker)

These rules allow you construct your own adventures, including asymmetrical situations that benefit or disadvantage specific cultures. This can be used as a handicap system if you have large differences in knowledge between players.

M1. THE REAL GREENLAND STORY

More closely simulates the actual starting conditions in Greenland.

Setup (biomes)	**Set the North row to climax: Markland, 5, 13, 1, 12, 0, 8**	
	Set the South row to climax: Vinland, 0, 3, 4, 7, 6, 5	
	Separate climax 4, 6, 11 and 15 from the north deck. Shuffle the rest of the north deck into a draw pile. Then shuffle the separated cards and put them on top of the pile.	
	Separate climax 9, 13 and 15 from the south deck. Shuffle the rest of the south deck into a draw pile. Then shuffle the separated cards and put them on top of the pile.	
Starting unassigned hunters (excuding Alpha).	**Norse 4, Sea Sámi 5, Thule 6, and Tunit 7.**	
Setup (event)	**Use all 17 event cards.**	
Special Rules	**Play the game using the Survivalist rules (C3).**	
	Certain Players are inactive, which means they skip their turn, can't be raided, and can only assign to the New World on their turn.	
	Norse	**Inactive on turns 1, 2.**
		Get 1 VP per Iron even when Polytheistic.
	Sea Sámi	**Never inactive.**
		Cannot hunt spear (land hunting) biomes in Greenland.
		Gets 1 free re-roll of 1 dice on Harpoon (Maritime) biomes.
	Thule	**Inactive on turns 1, 2, 3.**
		Gets 1 free re-roll of 1 dice on every attack roll, including raids and when defending from raids.
	Tunit	**Never inactive.**
Win conditions	**Highest Score as normal.**	

M2. THE FULL GREENLAND GAME EXPERIENCE

A longer game encompassing approximately 1000 years of Greenland history.

Setup (biome)	**Markland/Vinland followed by biomes with climax number 5, 4, 3, 2, 1 and 0 on both of the north/south rows.**
Setup (event)	**Use all 17 event cards.**
Special Rules	**At the end of the 17th turn, calculate and record your scores. Then reshuffle the events and start a game of "Nazi Greenland" per L2. However, players are allowed to keep any domestic animals and inventions they acquired during the first part.**
Win conditions	**Even though the game continues as "Nazi Greenland" it is still a competitive game. At the end of the game, regardless if you succeeded in any of "Nazi Greenland" win conditions or not, calculate the individual scores again.**
	Sum this with your individual scores calculated just before the first appearance of "West Greenland Current".
	Add 5 VP to the Tunit if they succeed in a Modern Greenland Victory.
	Add 5 VP to the Norse if they succeed in a US Intervention Victory.
	Add 5 VP to the Thule if a Nazi Defeat Victory occurs.
	Add all players total population divided by 10 (rounded down) as VP to the Sea Sámi.
	Highest score wins.

M3. EARLY GREENLAND (2-PLAYER)

Starts 10 generations before the first Viking arrival.

Setup (biome)	**Normal setup but exclude the Norse and the Thule and if a hammer biome appears, remove it from the game and replace it (except for Markland and Vinland).**
Setup (event)	**Use 10 event cards, removing events #32, 33, 40, 44 and 45.**
Special Rules	**All I Biomes have their required dice doubled.**
	Sea Sámi cannot hunt spear (land hunting) biomes in Greenland.
	Sea Sámi gets 1 free re-roll of 1 dice on Harpoon (Maritime) biomes
	Tunit cannot hunt on Harpoon (Maritime) biomes.
	Tunit gets 1 free re-roll of 1 dice on spear (land hunting) biomes.
Win conditions	**Normal win conditions.**

GAMES VS. SIMULATIONS, AN ESSAY BY PHIL EKLUND

Sometimes I am told that my works are not games, but simulations. I usually counter that "games vs. simulations" is a false dichotomy, and ask my detractor to define what a "game" or "simulation" is. He invariably declines, perhaps asserting that definitions are unimportant or subjective.

Let me state my thesis plain. Although not all simulations are games, all games are simulations, defining "simulation" as a "selective re-creation of reality". Further, all games are works of art, defining "art" as "the selective re-creation of reality according to an artist's value-judgments, following the principles of aesthetics".

A game can be compared to another great artform, the novel. Both have a protagonist with a challenge to overcome, and a conclusion where the struggle is resolved. In both, the protagonist can succeed or fail. Both reveal the artist's value-judgements and ultimately his philosophy. Both obey aesthetic principles: plot, structure, goals, selectivity of subject, clarity of expression, and integration of game elements.

In a solitaire game, the challenge to be overcome is in the game processes. In a multi-player game, much of the challenge comes from the decisions and skills of your opponents. But winning is secondary to the experience and story.

In this game, Greenland, the emphasis is on the exciting story to be told. Indeed, even though the turns are a generation long, the saga unfolds as if in a role-playing game. Suppose your sword breaks in battle. If this were DnD, you would curse and go to the blacksmith to fix it. But what if the blacksmith starved generations ago and his craft was lost? Or if there was not enough iron or fuel to spare for a charcoal furnace? What if the defense of your entire culture centered around one piece of metal, handed down from generation to generation?

For the design of Greenland, I included everything important for survival of a culture, using value-judgements based on my philosophy to determine importance. As a boardgame auteur, I integrated every element into an artistic whole, according to my vision. A vision distinct enough that most can recognize my work without seeing my name.

To be an artist, you need something to convey. You need to believe in something. You need context, principles, and long-range direction; you need connection among your goals, coherence among your turns, and a broad overview uniting your disparate experiences, conclusions, and actions into a sum. In short, every artist needs a philosophy, the means by which he comes to make value-judgements.

Are very abstract games also "re-creations of reality"? To a lesser extent, but yes. Reality runs by particular rules, called Laws of Science, and favors those who masters the rules. In this way, the rules of even the most abstract games mirror reality.

There is a "post-modernist" theory of art that claims it is up to the viewer to interpret or provide meaning. However, random splashes of paint or plotless word salads are not art. And one who has no clearly-expressed vision, or is concerned only with what is trendy, popular, or fadish, is no artist.

ANOTHER ESSAY BY PHIL EKLUND

Thoughts On Thoughts, Words On Words. (An Essay with Nothing and Everything to do with Greenland)

"A secret theater of speechless monologue and prevenient counsel, ...A whole kingdom where each of us reigns reclusively alone, questioning what we will, commanding what we can. A hidden hermitage where we may study out the troubled book of what we have done and yet may do." is how Julian Jaynes describes the running dialog of words that forms the consciousness of each of us. But who is talking to whom? It is as if one side of the brain is speaking to the other. This divided brain is called the bicameral brain, and the hypothesis is that the brain organizes itself and comes to decisions differently because of the power of words. Primitive peoples such as the Tunit had a brain identical to ourselves, and yet lacking our vocabulary may not have been conscious the way we are.

And why words? Why not pictures? Words are unappreciated economies of thought. They stand for abstractions such as justice, truth, and integrations such as deciduous or bicameral. Even prepositions and articles are important grammatical features impossible to convey with pictures. This is even more important when communicating with yourself than it is with others! This is why I chose to write this rulebook in words, and why your library likely contains a million words for every picture. Every word is worth a million pictures.

You will likely get indignant if I suggest that your memories are stored as words, and merely reconstructed visually in a mindspace. "No, my memories are images, stored in the brain pixel by pixel", you may sputter. But do a few simple experiments. Open a book, study a page for one minute, then try to reconstruct it on a sheet of paper. If your mind stored an image of the page, your reconstruction would be based upon that picture, perhaps blurry if the eye had no time to process everything. But instead your reconstruction will be the phrases and words you recall, and their position on the page will not match the reality. You might recall the forks in your drawer, but not how many tines they have. You may remember your first car, but not its license number. Or take a really vivid memory, and ask yourself: what is the shape of the frame of this image I have reconstructed? Where does the horizon intersect the body of the figure? Is this a moving image, and if so how many frames does it move before it repeats? All questions easily answered if the memories are stored as images, yet they are not.

Naturally, we had no such torrent of words before we as infants learned any. We are born tabula rasa, in the words of Locke. Imagine you are a super-intelligent animal, able to learn easily, but with no vocabulary. A tiger perhaps. Or Helen Keller at age 7. Ask yourself, what would your life be like without the constant dialogue of verbal thoughts? What would your technology be like if you could not visualize the product before you make it? What would your volition be like if you could not dance out the alternatives in the theater of your own mind? What would your sex life be like if you could not fantasize about it?

All animal minds use non-verbal concepts, sometimes called percepts, as units to help them organize their otherwise chaotic audio and visual inputs. These percepts are used in learning and instinctual behavior. If mapped into words, the stage the Tunit were at, then communication with others is

possible. But it is not known at what lingual stage the modern torrent of self-communication kicks in. If the two halves of the brain organized information more distinctly than they are using the modern vocabulary, then perhaps one half (the "god" side) did the word processing and instructed verbally the other half (the "man" side) what to do (following earlier decision-making using percepts instead of words). According to Jaynes, these instructions travel between the halves over the anterior commissure, a nerve bundle of unknown function, and self-communications are experienced as "voices", the stored admonitory wisdom of one's life.

These voices are factual, concrete, behavioristic, formalistic, commanding, and without greeting. They are automatically and unconsciously followed. Self-referential behavior is impossible, such as lying, suicide, volition by visualizing alternatives, or questioning or reflecting on the voices. According to Mithen, the early human mind mixed the word for "animal", with various words for social transactions. This mental chimera, animals making social transactions, inspired the Tunit bird-woman gods. Mixing the word "outsiders" and with words for things inspired a concept of people as objects to be manipulated, the basis of Tunit racism and taboos. And finally the most important words of all, the analog "I" and the metaphor "me". Grasping these creates a self dwelling in an introspectable mental world. This novel decision-making agency (i.e. consciousness) partially suppressed the previous decision-making agency, the god-voices. A terrifying experience! Robbed of the hallucinated authority he relied on his entire life, the newly conscious person attempted to coax the gods to speak again by employing ritual, chants, hand-held idols and/or alcohol. Or he appealed to a specialized Elder (a shaman or oracle who used drugs to remain in the bicameral state) to make his decisions for him. If an important authority figure in his life died, the person would treat the deceased as still alive, in order to keep the remembered voices alive. In Norse funerals, the dead were outfitted with food, drink, horses, weapons, and servants, not to speed the dead into the afterlife, but to enable the survivors to hallucinate the authoritative voices more easily.

The Tunit never learned the bow, and the Norse never learned the harpoon, factors contributing to their demise. The rich vocabulary and technology of the Thule (although it's an urban myth that the Inuit tongue has more words for snow than English) indicates that they made conscious decisions the modern way - by manipulating verbal concepts in a mindspace. Much as we do if we decide between two alternatives by imagining ourselves acting out the two possibilities. Although shamanism still had a role, the polytheistic gods were almost obsolete, explaining why monotheistic Christianity so effortlessly toppled the old Inuit and Norse panoply.

In this game, richness of vocabulary is simulated by your hand size (as it is in my games Origins and High Frontier). It would have been easier to call the two sides of the Placard "paganism" and "Christianity", but that would have detracted from the fundamental nature of the Orwellian thesis of this game: that what your mind can hold is limited by your vocabulary. And the more controversial thesis that your sense of self is a social construct, and below some lexicon threshold your mind is incapable of self-reflection and you must make decisions and form memories in an entirely different way.

All the founders of modern religions heard the voices clearly. Among them Moses and the burning

bush, Jesus in the desert, Paul on the road to Damascus, Muhammad in the cave, Joan of Arc in the field, Luther's thunderstorm and inkspot, and Joseph Smith at Cumorah. Christianity accommodated this class of persons by forming monasteries and nunneries, or, less benignly, by burning at the stake, iconoclasm (smashing the hand-held idols used to invoke the bicameral mind), and exorcisms. The Christian angels, devils, and even the Trinity can be interpreted as compromises with polytheism. All of these elements were present in Viking Greenland (including monasteries and convents!). And all are bizarre and inexplicable without something like the bicameral theory.

Phil Eklund

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