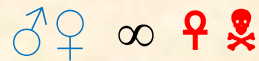


# CUBES!

## A GGDM 'dream-shadow' Game



***The most fundamental function of civilization  
is the creation and control of its own reality.  
Nothing is more important.***

**By Charles W. Phillips (*Nemo/Necuno*)  
A Tendentious Pedant**

# Table of Contents

<b>The Surreal Story in Threes</b> .....	1
<b>CUBES and cubes!</b> .....	1
➤ <i>Sole Survivor</i> .....	1
<b>Seven Pools of Light &amp; Darkness</b> .....	2
<b>QUANTUMIZATION</b> .....	2
<b>Player Turns</b> .....	2
<b>Census</b> .....	3
<b>Taxation</b> .....	3
<b>Culture</b> .....	3
<b>Order</b> .....	3
<b>Construction</b> .....	4
➤ <i>Hyper-Cubed</i> .....	4
<b>Technology</b> .....	5
➤ <i>Era Progression</i> .....	5
➤ <i>4<sup>th</sup> Era Technology</i> .....	5
<b>Movement</b> .....	6
<b>Expansion</b> .....	6
➤ <i>First Contact</i> .....	6
➤ <i>Finding a CUBE</i> .....	7
<b>Post-First Contact Actions</b> .....	7
<b>Combat</b> .....	7
➤ <i>Expedition and Sally Forth</i> .....	7
➤ <i>Futility or Loss?</i> .....	8
➤ <i>Also Sprach Zarathustra</i> .....	8
➤ <i>Crom Count the Dead!</i> .....	9
<b>Diplomacy</b> .....	9
<b>Commerce</b> .....	10
➤ <i>Commerce Raiding</i> .....	10
<b>Special Operations</b> .....	11
<b>Guardian of the CUBE</b> .....	11
➤ <i>The Avalanche Has Begun</i> .....	12
➤ <i>Too Late for the Pebbles to Vote</i> .....	12
<b>Countdown to Extinction</b> .....	12
<b>Double Quantum Events</b> .....	13
➤ <i>Reformation</i> .....	13
➤ <i>Kairotic Moment:</i> .....	13

## Surreal Story in Threes

Late in the evening on December 30, 2020, I was reclining on my couch with blankets on my legs, and at least two cats, if not three cats, sleeping on my legs as I watched men's college basketball; it was Penn State vs. Indiana on the DVR. About 10:20 p.m. I started to get sleepy, closing my eyes during commercials, and finally about just before 11:00 p.m., I turned off the television and fell asleep sitting up on the couch with blankets and cats on my lap.

I woke up a few minutes after 1 a.m. on New Year's Eve (about 1:08 a.m., I noticed from the cable box clock). I had been dreaming something surreal about solid cubes and civilizations and instantly my mind started constructing the rules to a game. Why and what we dream has long been a realm of fascination; I know I played the board game Quantum online for the first time on Christmas Eve, 2020 and I think it's a wonderful, elegant, subtle game that too often becomes one dimensional due to combats where one player dominates by being just a lucky die roller. I am also familiar with and had watched a couple of videos recently discussing the Kardashev Scale, and of course, GGDM lives in my mind.

I dozed off, woke up, dozed off, my mind working out rules along the lines of what I recognized as a dream-shade of my lifetime simulation game project, Gestalt Genesis/Day Million (GGDM). After half an hour of this, I laid down on the couch and tried to doze off again, but my conscious mind wasn't cooperating, running full blast creating detailed rules, so sometime after 2 a.m. on New Year's Eve, I got up and went up to my computer, where I sat and wrote most of the first draft of the game between 2 a.m. and sometime after 5:30 a.m. By then I was starting to burn out, so I went to sleep on the couch (no point in actually going to bed) at about 6:45 a.m. on New Year's Eve 2020, got up a few hours later and finished the initial rules draft by around 8 p.m.

### CUBES and cubes!

Each Player begins with one CUBE and **30 cubes** in their Civilization Pool. At the end of each turn, *each* CUBE a player owns consumes a random number of cubes (0-20) from the Civilization Pool (cubes cannot be taken from any other pool to satisfy the consumption). If at the end of any turn, a civilization cannot supply enough cubes from the Civilization Pool to satisfy all consumption requirements, the civilization (and player) becomes extinct and is out of the game.

Each player's information is secret, EXCEPT the number of completed CUBES they currently have, the types of actions being taken in order in the player's current turn, and the first roll of every QUANTUMIZATION, which are always public information. Some activations, such as Expansion, may also require that all or both QUANTUMIZATION rolls be performed publically and obviously, those are not secret. Obviously.

CUBES are permanent in the game, there is no mechanism for destroying or removing CUBES once obtained. A player cannot thus remove a CUBE to avoid consumption costs and another cannot destroy a CUBE to prevent victory. CUBES possessed by a player cannot be stolen.

- *Sole Survivor*: If at the end of any turn, a player has three CUBES (which is considered stable) and is not extinct, the player instantly wins the game. The game ends immediately at that point; a player can never become extinct who holds three CUBES (tesseract?)

*It is possible for all positions to lose (i.e. become extinct)*, it is possible to become extinct on the first turn; if having a game winner is important to you, then don't play this game. Or if you like a 'last man standing' (even if he falls over) ending, the last position to become extinct is the 'winner.' But you are all equally dead, *omnia mors aequat*, and the 'last player standing' is just the 'last among equals.'

## Seven Pools of Light & Darkness

All starting cubes (population, peons, ‘little people,’ colonial marines, starships, industry, scientists, explorers, politicians, hammy actors, stand-up comedians, political pundits, drug dealers, etc.) are placed for each position in a pool called ‘Civilization.’ **Twenty cubes** is the *initial size limit* of the Civilization Pool. If the size limit of any pool is exceeded, the extra cubes are removed at the end of the player turn, *after consumption*.

- The Civilization Pool size limit is expanded by the Diplomacy Pool and gaining the second CUBE which immediately doubles the current limit of the Civilization Pool. Subsequent removal of cubes from the Diplomacy Pool does not have double reduction effect.

In addition to the Civilization pool, each position may at times during the game, have cubes in other pools called Census, Construction, Technology, Diplomacy and Commerce. That’s a total of six pools. *Prior to the game start*, up to ten cubes may be transferred to the Census Pool.

The pools of a player position collectively define a ‘player civilization’ referenced in these rules, and does not include others pools unless specified. Only cubes currently in the Civilization Pool will be available to satisfy the consumption requirements of the CUBE(s) at the end of each turn.

## QUANTUMIZATION

The Quantumizer is a pool of six dice (the ‘7<sup>th</sup> pool’ or Sailing the Seven Seas) that each position has in front of them, one each d4, d6, d8, d10, d12, and d20.

At the end of the player turn, and during the turn for certain processes, the position will be required to perform a QUANTUMIZATION to determine the outcome.

A QUANTUMIZATION is performed in two steps. First roll 1d6,

- on a result of 1, a second 1d4 is rolled (1-4),
- on a result of 2, a second 1d6 is rolled (1-6),
- on a result of 3, a second 1d8 is rolled (1-8),
- on a result of 4, a second 1d10 is rolled (0-9, “0” results count as zero, not ten),
- on a result of 5, a second 1d12 is rolled (1-12), and
- on a result of 6, a second 1d20 is rolled (1-20).

A QUANTUMIZATION is completed by rolling the required second die and applying the result. If the first die roll is adjusted to zero (e.g., 1<sup>st</sup> Era Expansion Activation), no second roll is made.

Actions such as Combat and Special Operations are resolved by ‘competing’ QUANTUMIZATIONS of the participants, where either the highest or lowest number wins. Due to crap luck, having the biggest or smallest die in those situations doesn’t mean automatic victory or loss, just an enhanced chance of winning or losing the contest. The Order activation is the one that most directly effects QUANTUMIZATION but should be used with care.

## Player Turns

Each turn, a player may perform three actions, which are announced as they occur (the results are not announced, only the fact that they are occurring then). Some actions may require a QUANTUMIZATION, some adversarial situations are resolved publically. Unless otherwise specified, each action can be performed more than once. The actions are as follows (by columns):

Census Action	Order Action	Movement Action	Diplomacy Action
Taxation Action	Construction Action	Expansion Action	Commerce Action
Culture Action	Technology Action	Combat Action	Special Operations Action

**Census:** The maximum size of the Census Pool is half the current maximum size of the Civilization Pool, fractions truncated. The only way to expand the limit of the Census Pool is to expand the limit or maximum size of the Civilization Pool, the Census Pool limit automatically expands or contracts with the Civilization Pool limit. When the Census Pool has too many cubes, has exceeded its limit, the excess cubes must be discarded *at the end* of the player's *next turn*. This may 'force' a Taxation activation on the player's next turn.

*Getting in and out of the Census Pool.* Players may 'invest' in future generations of cubes. Prior to the game beginning, players may each choose to place up to ten of their starting cubes in the Census Pool. On subsequent Census activations, for every two cubes a position currently has in its Civilization Pool, one cube is added to the Census Pool. Half of those cubes are transferred/removed from the current Civilization Pool, but the total cubes taken in a turn cannot be more than half of what was in the Civilization Pool at the beginning of the turn.

The other half of the cubes added to the Census Pool are *new cubes* ("love shack baby!"). For example, a player activates Census with 12 cubes in the Civilization Pool. Six cubes will be added to the Census Pool (up to its current limits), and 3 of the 6 cubes added would be transferred from the Civilization Pool, while the other 3 are *new cubes* added to the Census Pool.

- Census may only be activated **once per turn** (except by use of the 4<sup>th</sup> Era ability).

**Taxation:** Players may attempt to 'produce' cubes which are immediately added to the Civilization Pool (up to the maximum size limit) and available for immediate use and use at the end of the turn. The result – number of cubes transferred – is determined by a QUANTUMIZATION.

The cubes 'produced' are taken from the Census Pool, up to the limits of what is in the pool currently. It is possible to 'drain' the Census Pool in a turn, 'cashing in' an entire generation. Prior Order activation may be useful to either enhance or mitigate the Census Pool drain.

New cubes are not added by Taxation. A player activating Taxation may not choose to take more or less than the QUANTUMIZATION result requires, except that the current size limit of the Civilization Pool cannot be exceeded. If the limit of the Civilization Pool is ever exceeded the extra cubes are lost, discarded, *at the end of the player's current turn* after consumption.

- Taxation may only be activated **once per turn** (except by use of the 4<sup>th</sup> Era ability).

**Culture:** Players may attempt to add *new cubes* to the Census Pool up to the current maximum limit. A QUANTUMIZATION is performed and *new cubes* are added equal to the result, however, more cubes cannot be added in a turn (regardless of how many Culture activations are performed) than half of what was in the Census Pool at the beginning of the turn.

A player may not choose to add less or more cubes to the pool than the QUANTUMIZATION Result, except in obedience of the above restriction and that the current size limit of the Census Pool cannot be exceeded. Maximum benefit is obtained by performing Census, Culture, Taxation activations in order, but that is an entire player turn whether done at once or spread out.

**Order:** Players may remove one die from the Quantumizer Pool. The removed die is set aside until the player's *next turn* begins, thus it will be out for the entire turn cycle ('tyranny in the nursery') and may have unexpected, extended effects.

Order may be performed at any time during the player turn, as one of the three actions performed. This may be a timing issue, players will need to decide at what point during their turn to perform Order, for example, if Special Operation and Combat are the other two activations. Players should also consider the long-term effect between turns, if they are attacked.

It is expected, for example, that players will want to remove the d20 prior to determining how many cubes the CUBE consumes at the end of the turn. But other actions benefit from a d20 result, so it may be better to leave the d20, using the last action to remove it before rolling for cube consumption. However, consistently doing this as a strategy requires an Order activation every turn which hampers other abilities. The die to be removed is determined by the player, however, removing the d6 from the QUANTUMIZATION Pool will not prevent other QUANTUMIZATIONS as required during the player's current turn. It only prevents d6 from being the result of the first roll (that is, used in the second roll) in the QUANTUMIZATION resolution.

Order action could be taken one, two or three times in a player's turn, each time, removing one die from the QUANTUMIZATION until the beginning of the player's *next turn*. This may or may not be beneficial in the short-term, but is probably ultimately destructive in the long-term.

**Construction:** Players may Construct *one and only one CUBE during each Era*, starting with the 2<sup>nd</sup> Era, using cubes from their Civilization Pool. The CUBE with which players begin the game is the 1<sup>st</sup> Era CUBE. Only one CUBE may be under construction at any time, per Era.

During each Construction activation, a player may do one of two Construction acts:

1. Permanently add 1 to the maximum number of cubes that can be added to the CUBE each turn (be careful of future costs) or
2. Add up to the maximum number of cubes to the nascent CUBE from the Civilization Pool.

The Construction Pool begins the game empty. Cubes are moved from the Civilization Pool to the Construction Pool and once moved, are never returned and cannot be used to satisfy any other purpose; they are 'spent' and never 'produce' or generate other cubes.

The maximum number of cubes that can be added to the CUBE is determined by a QUANTUMIZATION plus the number of cubes that had been added in the game to that point per "1" above. The required number of cubes are immediately moved from the Civilization Pool to the Construction Pool, however, the required number can never exceed half of the cubes in the Civilization Pool at the time of the Construction activation.

A player can never add less than the number of cubes that had been added in the game up to that point unless it violates the preceding limitation. That is, suppose a position activated Construction three times previously, each to permanently add 1 to the number of cubes that can be added to the CUBE each turn. The minimum number of cubes added in a turn would be 3 plus the QUANTUMIZATION result, but no less than 3 in any case unless there were less than 6 cubes initially in the Civilization Pool; a player cannot 'expend all remaining' to build the last CUBE.

- A player may not activate Construction if there are insufficient cubes in the Civilization Pool to meet the minimum requirement based on the accumulated permanent +1 additions plus 1 and the maximum allowed transfer based on cubes in the Civilization Pool.
- *Hyper-Cubed:* A CUBE is complete when 27 cubes have been accumulated in the Construction Pool (like a 3x3 Rubik's Cube). When complete, the cubes used in the Construction of the CUBE are removed from the Construction Pool, they are never returned to the Civilization Pool or moved to any other pool; they are spent.
  - The Civilization Pool size limit is *immediately doubled*, so completing a second CUBE could be an urgent or timing issue, e.g., Construction before Taxation.

If the number of cubes required to be moved in a Construction activation would exceed the 27 cubes needed to finish the CUBE, only the number of cubes actually required must be moved. A player *may choose* to move more cubes to the Construction Pool than would be

necessary to finish a CUBE, up to the limit of the QUANTUMIZATION result plus permanent additions – *but only if* the player civilization is *currently technologically eligible* to build a new CUBE (that is, has achieved 3<sup>rd</sup> or 4<sup>th</sup> Era Technology, see below) – any extra cubes moved to the Construction Pool go toward the next CUBE to be constructed. A position can instantly win without fighting by building two CUBES.

- Yes, there are two paths you can go by...

Completed CUBES are public information, all players know at all times how many CUBES (but not cubes) each other player has currently. The ultimate goal of building CUBES is to win the game and avoid extinction, completing a third CUBE instantly ends the game.

**Technology:** Upon achieving the 2<sup>nd</sup> Era, players may use the Construction Power to begin Construction of a second CUBE. Activation of Technology is for the sole purpose of adding cubes to the current Era to advance toward the next Era. The Technology Pool begins empty.

All players begin in the 1<sup>st</sup> Era, progress to the 2<sup>nd</sup> Era, and then may progress to either the 3<sup>rd</sup> or 4<sup>th</sup> Eras. Third Era players may progress to the 4<sup>th</sup> Era. Fourth Era players may ‘re-progress’ to the 4<sup>th</sup> Era under certain circumstances. There is no Era progression beyond the 4<sup>th</sup> Era.

*Technology activation moves cubes from the Civilization Pool to the Technology Pool.* This is a permanent movement, cubes moved to the Technology Pool never return to the Civilization Pool and they don’t ‘produce’ anything, they are ‘invested’ or ‘spent.’

The maximum number of cubes that can be added to the Technology Pool is the current Era number plus the number of other actions taken in the player’s current turn previous to activating Technology. That is, 1 cube may be added for the 1<sup>st</sup> Era, two cubes for the 2<sup>nd</sup> Era and three cubes for the 3<sup>rd</sup> Era, plus up to two more if two other actions were taken in the current turn prior to activating Technology. The Technology Pool does not have a maximum size limit.

A player is required to add the maximum number of cubes to the current Era whenever Technology is activated but may not take more than half of the cubes currently in the Civilization Pool. If the Civilization Pool has insufficient cubes, Technology cannot be activated. A player may choose to add more than the number of cubes required to complete the next Era to get a leg up.

- *Era Progression:* Players must keep track of their current Era at all times. Once achieved an Era cannot be lost or undone either voluntarily or involuntarily (and there is no reason to do so), Era achievement is permanent, unless the player civilization becomes extinct.

Players are never required to build a new CUBE to advance an Era, but only one CUBE can be built while in each Era. Era progression is never tied to or restricted by the number of CUBES a player has currently.

When 16 cubes have been accumulated in the Technology Pool (min. 6 activations), a player *must* automatically advance to the 2<sup>nd</sup> Era by removing 9 cubes from the pool. When 25 cubes have been accumulated in the Technology Pool (prob. 2+ more activations), a 2<sup>nd</sup> Era player *may* advance to the 3<sup>rd</sup> Era by removing 16 cubes from the Technology Pool.

- *4<sup>th</sup> Era Technology:* When 36 cubes have been accumulated in the Technology Pool by a 2<sup>nd</sup> or 3<sup>rd</sup> Era player civilization, that player *may* remove all cubes to advance to the 4<sup>th</sup> Era. Once per game, a 4<sup>th</sup> Era player may undo both steps of a QUANTUMIZATION just completed or may activate for a second time any action that is limited to one activation for the same turn or may abrogate *any* Double Quantum event (a sort of ‘delayed quantum eraser’).

Use of the 4<sup>th</sup> Era ability does not demote a player civilization from the 4<sup>th</sup> Era for any other purpose in the game, the 4<sup>th</sup> Era remains the ‘highest current era’ and allows building a

CUBE regardless of special ability status. The 4<sup>th</sup> Era ability may be ‘recharged’ by accumulating enough cubes in the Technology Power to have achieved the 4<sup>th</sup> Era again (36 cubes, min. 6 activations) and then removing those cubes as if achieving the 4<sup>th</sup> Era for the first time. Re-achievement is never required or allowed for any other than the 4<sup>th</sup> Era.

The 4<sup>th</sup> Era ability can only be ‘recharged’ if it has been used, players may not accumulate multiple uses of the 4<sup>th</sup> Era ability in advance.

**Movement:** Movement activation allows a player to move cubes between the Census, Construction, Technology, and Commerce Pools, up to the limits of the destination pool. The number of cubes that must be moved is determined by a QUANTUMIZATION; the player must publically specify the origin and destination pools before resolving the QUANTUMIZATION.

- Movement activation does not allow movement of cubes from any of these pools to the Civilization Pool. Sorry Charlie....

No more than half the cubes *currently* in the origin pool can be moved, regardless of the result of the QUANTUMIZATION but the limits of the target pool can be temporarily exceeded (discarding excess at the end of the turn). Because the current value is used, the number of cubes in the pool may have been changed by previous actions in the same turn, it is thus possible to generate new cubes in the Census pool by Culture activation and move them by Movement activation directly to other pools (saving the step of moving from the Census Pool to the Civilization Pool then to the target pool). Movement may also usefully circumvent ‘blocked actions.’

**Expansion:** Expansion activation involves three possible steps.

Each Expansion activation must either gain cubes to add to the Civilization Pool (mining, up to the limits of the pool) or must increase the size limit of the Civilization Pool (planets). The final result is determined by a QUANTUMIZATION; 1 is subtracted from the *first die roll* if the Expansion is to gain cubes to add to the Civilization Pool (i.e. max 1d12<sup>1</sup>), and 7 minus the highest current Era is subtracted from the *first die roll* if the Expansion is to increase the maximum size of the Civilization Pool (i.e. max. 1d8 in 4<sup>th</sup> Era, max. 1d4 in 2<sup>nd</sup> Era, no advance in 1<sup>st</sup> Era). The purpose of the Expansion must be declared before the first roll of the QUANTUMIZATION.

- *First Contact:* Each Expansion activation must attempt to First Contact one previously uncontacted player civilization designated by the activating player; successful First Contact is necessary to perform any of the remaining four activations that involve other players (Combat, Diplomacy, Commerce, Special Operations). The player toward whom the attempted First Contact is directed has no say in the matter, cannot refuse, nor can the player activating the Expansion refuse to name one target player, *unless all other players have been successfully contacted by that player*. The First Contact target must be publically announced.

First Contact is resolved by both players publically performing a QUANTUMIZATION. If the player who activated Expansion has the lower result, a First Contact has been made, and must be recorded by the players involved exchanging colored ‘embassy’ cubes. First Contact involves nothing else, costs nothing, it only creates the possibility of future interaction between positions. Lack of First Contact does not bar pre-contact table talk.

After First Contact, positions exchange one ‘embassy cube’ from each position, which is *not taken from the current Civilization Pool*, to mark that First Contact has occurred. The exchanged cubes are placed in the Diplomacy Pool and cannot be used for any purpose, but can only be returned to their original owner. Each cube in the local Diplomacy Pool increases

---

<sup>1</sup> Because a ‘0’ result on 1d10 is zero, it is possible to receive no cubes for an Expansion activation. Expansion is the quick fix go-to for cube shortages in the Civilization Pool, you might even get lucky, but is it the best strategy? Will it be abused? It’s dicey. It will take many plays to determine if an adjustment needs to be made here.



the size limit of the player's Civilization Pool by one, so there is an incentive to force or seek contact and to mutually expand Diplomacy Pools afterward.

- Players may through chance or design become 'isolated' positions; equally so, a player who never explores may end up in contact with everyone anyway. There are pros and cons to both, the only choice is whether or not to seek First Contact.
- *Finding a CUBE:* Finally, there is a very small chance that each Expansion activation will locate a CUBE. Like a cat finding an empty unexplored box. A third QUANTUMIZATION is publically performed and if the result of the second roll is '20' (on a d20, which requires an initial '6' result on the first d6 roll), a third roll is made on the d20 and if the result is also a '20,' a CUBE has been discovered (a 1/400 chance)! The discovered CUBE is placed in the center between the players and may be subsequently won by Combat or Diplomacy.

Only one CUBE can be in the center at any time, so if another CUBE is already there, this step is skipped. Expansion is one of two ways a CUBE may be placed in the center, the other is extinction; of the two, extinction is much more likely the cause of a CUBE in the center.

## Post-First Contact Actions

CUBES! is a 'brutal' pencil-n-eraser game of risk management, encapsulated by the end-of-turn consumption of cubes from the Civilization Pool. Ideally, one could Construct a CUBE up to 26 cubes, then grab a CUBE that lands in the center, and finish the Construction CUBE on the same player turn or the next for an instantly gratifying victory. But it never quite works that way.

**Combat:** Combat may be activated to be fought against either other players to destroy cubes, or in an attempt to seize guardianship of a CUBE that is in the center of the playing area. There will be several opportunities per game to fight over a CUBE in the center.

A player activating Combat may only directly attack any other player with whom First Contact has been established or may attack *any* player whose forces are guarding a CUBE in the center regardless of First Contact. Combat is not First Contact, fire is exchanged instead of embassies.

In either case, activation of Combat immediately requires that the player remove cubes from the Civilization Pool, but must leave at least four cubes in the Civilization Pool (if four or less cubes are currently in the Civilization Pool, Combat cannot be activated and the 4<sup>th</sup> Era ability cannot cause it to be activated). The cubes removed from the Civilization Pool are placed in the center area. The Combat player (attacker) must then either publically designate a target player (defender) to attack directly (who must put up defense forces), or must attack the cubes already guarding a CUBE in the center, or must set their forces to guard a CUBE in the center if no one else is already doing so. There can be only one ... Guardian of the Cube.

Combat is then resolved in a "symphony of destruction." The parties may lose some or all of the cubes that were committed. If the combat is over a CUBE in the center, the victor becomes or retains guardianship of the CUBE. *Dance Macabre* toward extinction.

- *Expedition and Sally Forth:* The moving player (attacker) who activates Combat for any ultimate purpose, must immediately remove cubes from the Civilization Pool to form an expeditionary force. The number of cubes in the expeditionary force cannot, naturally, exceed the number of cubes that were in the Civilization Pool minus four at that moment (less than 5 cubes in the Civilization Pool will block Combat activation). The minimum expeditionary force is one cube, cubes may be added from the Civilization Pool equal to the number of actions taken prior to the Combat in the current player turn, plus cubes equal to the current highest Era number of the player's civilization. All additions are voluntary after the first cube. The maximum expeditionary force is seven cubes.

If a direct attack is being made on another player, that player must send out at least one cube to defend, and may add cubes from the Civilization Pool until it is exhausted – the ‘four cube rule’ does not apply in direct defense. The parties to a combat have only one opportunity to add cubes to form their combat forces. If the defender has no cubes in the Civilization Pool (there was exactly enough to satisfy the prior turn’s consumption), the defender gets one free cube to defend in the combat. Sending extra cubes does not create any direct combat bonus.

- The natural tension between the threat of extinction and needing to win or survive naturally brackets the risk of Combat activation, as does other competing needs.
- *Futility or Loss?*: Prior to forming the attacking and defending forces in a combat, the attacker must declare whether they are assuming the ‘risk of futility’ – that is, limited war, border clash, proxy skirmishing<sup>2</sup> – or the ‘risk of loss’ – total war, the existential stuff, think World War 1, World War 2, Starship Troopers. Afterward, the defender declares their choice as well, history demonstrates time and again how limited war can lead to total war or great loss by the attackers against fanatical, aggressive defenders. Because to attack and fail....

This is a major risk-reward decision. The choice does not restrict in any way the size of the expeditionary force or the defending force, both participants may send the max to fight a limited war, but it does affect the outcome or resolution of the Combat.

- *Attrition Warfare.* A player who declares ‘risk of futility’ and wins the combat may immediately initiate another *free* combat, before their next action, against any other legal target, even if it is not their turn (i.e. they were the defender). This does not count as an action taken for the player’s turn, it is an extra combat, not an extra action (nothing else can be substituted in lieu of the extra combat).
- *Also Sprach Zarathrustra:* All combat resolutions are between two positions; the moving player (‘evil’ attacker, *Angra Mainyu*) and the victim (‘good’ defender, *Aka Manah*). Ultimately, all combats are resolved by each player performing a QUANTUMIZATION (*Asha*).

Prior to any QUANTUMIZATION, each player not involved in the combat may make a short statement that is applied to the resolution of that combat. For example, a player may state that all die rolls are +1 during the combat. Players make statements beginning from the player to the right of the attacker and then the player to the right of the defender, alternating until all players, *except the combatants*, have had an opportunity to make a statement.

Statements can only apply to combatants with whom the player has had First Contact, statements do not need to be supportive of or adversarial to either side, and players may choose to not make a statement. For example, saying that +1 is added to all die rolls during the combat probably won’t help anyone, but will increase losses on both sides. Someone has to keep track of the statements to be applied to the combat and statements may reflect current diplomacy between positions, including alliances.

A statement cannot directly contradict or simply cancel a prior player’s statement; if someone says +1 is added to all die rolls during the combat, it cannot be cancelled by another saying -1 is subtracted from all die rolls. Players should be creative but restrained and mature about it. There is potential here to make the game wild and there is potential for abuse; players need to judge as a group what is appropriate. No player can ever be prevented or ignored

---

<sup>2</sup> Quantum board game is a good example of a game where there is no risk to attack except the risk of futility. The attacker cannot be destroyed by attacking, can only be repelled, but the defender can be destroyed while defending. They even say on the top of p. 7 “there is no risk to the attacker.” The only cost is the use of an action to attack and be repelled. Another example is Red Storm Rising board game where each ground unit has an attack each turn, and it costs nothing, no risk of loss or retreat for the attacker. So everyone attacks every turn along the front; other games such as Panzergruppe Guderian feature a risk of step loss or retreat as a result of poor attack odds or result.

from making a statement; some coercion and retaliation might be expected, but not to the ruin of the game.

- *Crom Count the Dead!*: Combat is resolved by competing QUANTUMIZATIONS by each player. To the result of each QUANTUMIZATION are added the highest current Era of each player squared (that is, 1, 4, 9, or 16) and all statements by the other players are applied in the order given. Era differences contribute only indirectly to cube losses in combats by enhancing the chances of winning or losing. In the end, the player with the highest total number wins the combat (possible range is 1 to 36, all players begin in the 1<sup>st</sup> Era). All combats of any type are resolved in one round, with one QUANTUMIZATION by each player.

If the player who won the Combat declared ‘risk of futility’ (chance of accomplishing nothing, limited chance of success) and the losing side declared ‘risk of loss,’ the winner may choose to take (capture) cubes from the loser equal to 1d4 or eliminate cubes from the loser’s force equal to 1d8 and the winner loses 1d6 cubes from their force (a maximum attacking force of 7 cubes cannot be eliminated). If the loser also declared ‘risk of futility,’ the winning player instead loses 1d4 cubes from the attacking force; *hoping for a net gain*.

- *Attrition Warfare*. A winner who declared ‘risk of futility’ may immediately initiate another combat against any legal target, even if they were the defender.

If the player who won the Combat declared ‘risk of loss,’ the opponent loses cubes from the force involved equal to the difference between the competing QUANTUMIZATION results divided by the losing player’s highest current Era. The winner loses 1d6 cubes from their force if the loser declared ‘risk of futility’ or 2d6 cubes if the loser declared ‘risk of loss.’ It is possible for the entire force of a side to be destroyed, cube losses cannot exceed the number of cubes committed to the combat (maximum 7 for the attacker). A maximum attacking force of 7 cubes that wins cannot be eliminated by 1d6 (unless modified by a statement).

On poor results, the winner can lose more cubes than the loser of a combat. All surviving cubes *in a direct attack* or an *attack that failed to destroy forces guarding a CUBE* are immediately returned to their respective players’ Civilization Pool after combat losses. If the forces guarding a CUBE are all destroyed, the surviving cubes become the guardians, regardless of whether they won the combat or not (i.e. tactical loss, strategic victory).

- *If an entire force is eliminated as a result of combat losses* in either scenario, whether it won or not, the owning player politically owns the results and makes one roll on the table on p. 13, applying the results as if a Kairotic Moment occurred. If a combatant sends out one cube, this is a guaranteed event, win or lose. Avoiding this penalty and guardianship of the CUBE is the reason to send more than one cube into a combat; extra cubes (‘troop surge’) create political insurance.

**Diplomacy:** Activation of Diplomacy is never required for players to speak or make agreements or proposals; what is appropriate in public table talk or side conferences is up to the players as a group. Diplomacy activation during a player turn is only required for certain official acts.

- The Diplomacy Pool begins the game empty and only holds ‘embassy cubes.’ There is no need or mechanism for transferring friendly cubes to or from the Diplomacy Pool.

Diplomacy activation is directed toward another player with whom the position has had First Contact (i.e., exchanged embassy cubes, which should be easy to determine) for the purpose of adding or withdrawing cubes from the corresponding Diplomacy Pools. Withdrawal of ‘embassy cubes’ can be accomplished unilaterally by one player’s Diplomacy activation, but addition of cubes by further exchange requires both players to activate Diplomacy on their consecutive turns, respectively. Combat between players does not directly affect Diplomacy Pools.

Up to half of the cubes from a player can be withdrawn in a single Diplomacy activation, but the initial *embassy cube* can never be withdrawn. A maximum of one cube can be added to another player's Diplomacy Pool per Diplomacy activation, plus one for each other prior Diplomacy or Commerce activation in the same turn, even if different players were involved or were duplicate.

*Hard to climb, easy to fall.* So, for example, a player might activate the Census first to gain cubes, then the Diplomacy twice, targeting the same or different players, to add 'embassy' cubes to the other player's Diplomacy Pool. The first Diplomacy activation could add 1 cube, and the second 2 cubes, because the first Diplomacy activation counts as a prior activation for the second (even if targeting different players). If instead of Census, Commerce were activated, one more cube could be added by each following Diplomacy activation in the same turn (2 and 3, instead of 1 and 2 in the example above), regardless of what was done with the Commerce activation.

- Diplomacy activation at some point during a player's turn is required to vote on a diplomatic resolution of a 'cube crisis' described below. A player is never required to vote due to activating Diplomacy during their turn, it's just an adjunct to the activation.

**Commerce:** Commerce activation is solely for the purpose of either *removing* or *adding* cubes to the Commerce Pool, only one of each can be done with an activation, but it is possible to do both in a player turn with multiple Commerce activations ('commerce cycling'). Cubes used in Commerce activations may only move between a Commerce Pool and a Civilization Pool.

- This restriction does not apply to a Movement activation that transfers cubes to or from the Commerce Pool.

The Commerce Pool begins the game empty. The maximum size of a Commerce Pool is half the limit of the current Civilization Pool. Thus, the starting limit of the Commerce Pool is ten cubes and automatically adjusts to changes in the size limits of the Civilization Pool. The limit to the number of cubes that can be added to or removed from any Commerce Pool during a Commerce activation is equal to the highest current Era number of *the player position that adds or removes the cubes*. Other player's cubes can be mixed in the Commerce Pool (you know, bribery...).

*Enhanced Value.* If Commerce is activated by the Commerce Pool's owner to remove *any* cubes currently in the pool ('cashing in') – to a maximum possible 4 cubes with 4<sup>th</sup> Era technology – cubes are added to the Civilization Pool equal to the number removed plus 50% (fractions truncated) plus one extra cube. So with four cubes removed from the Commerce Pool (4<sup>th</sup> Era technology), a position gains 7 cubes in the Civilization Pool; with one cube removed from the Commerce Pool (1<sup>st</sup> Era technology, or voluntarily taking less cubes), a position gains 2 cubes added to the Civilization Pool. And that represents the range of possibilities, momentary urgency to avoid extinction and desire for efficiency of action will govern the return players find tolerable.

- *Commerce Raiding:* Other players with whom the Commerce Pool owner has First Contact may also activate their Commerce Power to remove *any player's* cubes from another's Commerce Pool. Other players may always remove one cube from a Commerce Pool during their turn without permission and receive the same enhanced value. Removal of more than one cube requires permission of the Commerce Pool's owner and receives the same enhanced value and the same restriction as the Commerce Pool owner would have; thus a 1<sup>st</sup> Era player could only take one cube from another's Commerce Pool per activation with or without permission and would immediately receive two of their own cubes in their Civilization Pool.
  - A 'commerce raider' war could develop, but mostly it will be tit-for-tat using up activations unless many players gang up on one. Extinction could occasionally result from timely 'commerce raiding' – for example, how the Sea Peoples greatly contributed to the Late Bronze Age Collapse, destroyed Palatial Cultures, and nearly bankrupted Egypt who ultimately defeated them. Skillful combination and

management of Diplomacy and Commerce Pools can be key to survival and victory, one increases the size of the Civilization Pool, the other adds to it, especially if you can get extra cubes from someone else!

**Special Operations:** Special Operations activation requires the removal of one cube from the Civilization Pool and the target player must have had First Contact with the aggressor. Regardless of the purpose or result of the Special Operation, the cube used is ‘spent’ and not returned to the Civilization Pool.

A Special Operation activation can only affect another player, there are no ‘friendly’ uses of Special Operation activations; it’s another form of warfare without being Combat. Special Operation activation can attempt one of three purposes: Steal, Spy, or Subvert. A successful Steal Special Operation removes cubes from *any of the target player’s pools*, excepting the Diplomacy Pool; 1-3 cubes are received for the cube that was spent, plus 1 cube if the aggressor is 4<sup>th</sup> Era (extra cube may be declined). Received cubes are immediately placed in the actor’s Civilization Pool to be used later, cubes lost are immediately removed from the pool of the target player.

A successful Spy Special Operation activation reveals the current contents and limits, if applicable, of the target pool of the target player’s position; the target pool in this case may include the Diplomacy Pool. If an extra cube is added/spent from the Civilization Pool *after* the Spy is successfully resolved (the decision to do so must be made immediately afterward), the aggressor may also learn either the current highest Era of the target player or the current status of any CUBE under Construction.

A successful Subvert Special Operation activation deprives the target player of one action on the player’s next turn. A player may be completely deprived of actions by multiple successful Subvert Special Operations (government collapse, civil war), but any additional effects do not carry over from turn to turn, thus, if four activations are lost, the last one does not carry to the turn after the target player’s next turn. For one player to completely subvert another would require three successful Subverts on one player turn, and effectively cancel each other out, while the rest of the game moves on.

- The aggressor always spends one or two cubes regardless of the type or success of the Special Operations activation, but the target never loses cubes for Spy and Subvert Special Operations against them regardless of the results. Results of Special Operations only directly affect the aggressor and target players, but may indirectly effect other players.

All Special Operations are resolved by competing QUANTUMIZATIONS with the lowest number winning. A win is a success for the aggressor, a loss is a failure for the aggressor. Special Operations are somewhat incompatible with Combat in the same turn as one wins high, and the other wins low, so can be difficult in combination with activation of Order.

- Like Diplomacy and Commerce may combine effectively to ensure survival, Special Operations and Commerce can be a fatal combination, with or without additional Combats, to push a target position toward extinction. This may be part of a nefarious plan to push a CUBE to the center space so that it can be claimed.

## **Guardian of the CUBE**

A player whose forces are protecting a CUBE in the center is the ‘Guardian of the CUBE,’ and the actions of the other players to claim or prevent the claiming of a CUBE in the center is a ‘CUBE crisis.’ There is no means to add cubes to a force guarding a CUBE. A CUBE in the center play area is won, passes to the possession of a player under the following circumstances:

- If the player has successfully guarded the CUBE against all comers in combat (even if no combats were fought over it) for an entire round, from one turn to their next turn. Potentially each other player on their turn could sally expeditionary forces to try to seize the CUBE, guardianship of the CUBE could change several times a round. Doubling the Civilization Pool limit is incentive. A player must successfully hold guardianship of the CUBE from one turn to their next turn, if on their next turn, their cubes are still guarding the CUBE it passes to them. Instant victory may result if the CUBE gained from the center is the third CUBE possessed by the guardian player. Thus, a crisis will result.
  - The CUBE in the center can also be won by Diplomacy, regardless of guardianship, if during the round of guardianship, other players activate Diplomacy during their turns and publically vote on who owns the CUBE in the center. Will this ever happen?
- *The Avalanche Has Begun:* A player cannot vote without activating the Diplomacy Power on their turn, thus there is a cost, but it may be necessary and may be worth it to not lose instantly. Each voting player, except the first player who votes, must have First Contact with at least one other player who has already voted, otherwise they cannot vote on it. First Contact with the *guardian player* is not necessary to vote. It is important then whether the first player who votes has many First Contacts and that voting is initiated as soon as possible after the current guardian players' turn. An 'isolated player' cannot win the cube by voting first.
- Voting cannot occur until someone establishes a position as guardian of the CUBE. There must be a 'crisis' for Diplomacy to resolve. It is entirely possible that a CUBE could sit in the center with no guardian, like a haughty pretty girl alone at a party that none of the boys will approach and that the other girls don't like and didn't invite.
- *Too Late for the Pebbles to Vote:* If during a round from the current guardian's turn to the current guardian's next turn, a consensus is reached by majority of those who voted (not a majority of players) of who should own the CUBE in the center (minimum of 2 votes, requiring agreement, *so the last player can't just give it to themselves*), the CUBE passes to that player on the current guardian's next turn; the receiving player could be the current guardian or a player who did not or could not vote during their turn. The process is abrogated if the guardian changes before the end of the round, and all votes before that point are disregarded, and must be recast on the players following turns, until a resolution is reached. The process could get messy and protracted; the vote tally is also irrelevant if someone takes the CUBE by guardianship before a consensus is reached. Thus, diplomacy is always subject to arms.

## Countdown to Extinction

At the end of each Player's Turn *in which the position has less than three CUBES*, immediately following resolution of the last action whatever it may be, a QUANTUMIZATION is performed and the results represent the number of cubes that must be immediately removed from the Civilization Pool to satisfy the consumption requirements of one CUBE in the player's possession.

A separate QUANTUMIZATION is rolled for *each CUBE* a player possesses (maximum of two) at the end of the turn. Non-profit: *Doubling the Civilization Pool limit potentially doubles costs!* Any time a player civilization cannot satisfy the consumption requirements of all CUBES they own, they become extinct and are out of the game (i.e. the Emperor is maintained at a mere cost of 1,000 souls a day). It is possible to become extinct on the first turn, it is possible to become extinct immediately after winning or Constructing a CUBE, extinction is possible on any turn in which a position has less than 20 cubes in the Civilization Pool per CUBE in their possession.

- When a player becomes extinct, one of their CUBES is placed in the center if there is not already a CUBE in the center and may be fought over or obtained by Diplomacy. This may in fact be part of a plan by your enemies.

- Possessing a third CUBE *instantly ends the game*; it is therefore not possible for a player with three CUBES to become extinct (or ‘lose’ the game), even if the CUBE was won just before the consumption rolls.

## Double Quantum Events

When the same number is rolled twice on any type of dice during any QUANTUMIZATION, a ‘double quantum event’ occurs immediately after the triggering situation is resolved, whether it is an action or competing QUANTUMIZATIONS. Since the first die is always a d6 roll to determine the second die to be used, the ‘double quantum event’ can only be triggered by a double result between 1 and 6 on whatever die is used for the second roll (d4, d12, etc.) If the triggering result is less than or equal to the number of cubes in *any pool* of the triggering player’s civilization (there are six pools, constantly keeping them all over 6 cubes to avoid Reformation Events is challenging), a ‘double quantum Reformation event’ occurs, if the triggering result is a *odd number* (that is, 1, 3, and 5), a ‘double quantum Kairotic Moment event’ occurs. Both can happen from the same roll; it is possible to have multiple ‘double quantum events’ resolving on and affecting the same position in a single player turn and between turns. The result of any occasional ‘double quantum event’ is game warping and can indirectly and directly affect other positions.

- *Reformation*: If a Reformation is triggered 50% of all friendly cubes (fractions truncated) of the triggering player in the Census, Construction, Technology, Diplomacy and Commerce Pools are immediately dumped into the Civilization Pool, *including those in pools of other player’s civilizations*. If the number of cubes then in the Civilization Pool exceeds the limit of the pool, the next action activation is lost (that is, one is either lost from the current turn, or if none are available, one is lost from the player’s next turn). Further, if the excess cubes over the pool’s size limit cannot be used in the current player turn, they will be discarded at the end of the turn, *or at the beginning of the player’s next turn*, whichever comes first.
- *Kairotic Moment*: If a Kairotic Moment is triggered, 1d6 is rolled and the result determines the number of actions that are blocked until the end of the player’s *next turn*, and a d12 is rolled for each to determine which specific actions may not be activated. Duplicate results are not rerolled, so that may provide some relief. The d12 results are as follows:

1 – Census Action Blocked	7 – Movement Action Blocked
2 – Taxation Action Blocked	8 – Expansion Action Blocked
3 – Culture Action Blocked	9 – Combat Action Blocked
4 – Order Action Blocked	10 – Diplomacy Action Blocked
5 – Construction Action Blocked	11 – Commerce Action Blocked
6 – Technology Action Blocked	12 – Special Operations Action Blocked

When an action is blocked, it cannot be activated, you simply cannot do those things. The effect of the Kairotic Moment represents extreme and temporary conditions in the civilization, for example, xenophobia (blocking Diplomacy or Commerce), a new radical pacifistic religion (blocking Combat or Culture), neo-Luddites (blocking Technology or Movement), etc. On the player turn following the expiration of the Kairotic Moment, the player gets one extra action which may be used on any subsequent turn to the end of the game.

At the same time as the triggering player must make rolls for the Kairotic Moment, each player with whom the triggering player has First Contact must also make a roll on a d6. If the result is an even number, they are affected by the Kairotic Moment as well, and must roll 1d12 on the table above to determine one action that is blocked from activation on their next player turn. Other players cannot have more than one activation blocked by a Kairotic Moment event, but also do not receive the extra action when the block expires.