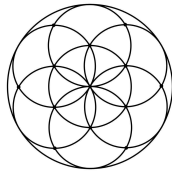


Castalia

A Co-Creative Knowledge Ecosystem



Summary: Knowledge generation social network powered by

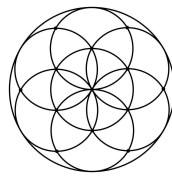
- user-generated collectible hypercards,
- synchronous and asynchronous co-creation games,
- topic specific collective intelligences,
- crowdsourced resources,
- feedback relationships,
- and ai-augmented creativity.

[Wikipedia](#) x [Deviantart](#) x [Dada.nyc](#) x [Github](#) x [Hypercard](#) x [Reddit](#)

Stack: [_Protocol](#) x [ERC-721 Non-Fungible Tokens](#)

Platform: Web, Windows, Mac, iOS, Android.

Target: Knowledge and art workers and consumers



Castalia is a co-creative social network inspired by Hermann Hesse's community of truth-seekers in his book [The Glass Bead Game](#).

The **Glass Bead Game** frames the social network as **a collective game of cocreation**. Players cooperate and compete to make the most interesting **beads** - hypercards - which are voted into a **hierarchy**.

Beads are posts that allow for multi-level multimedia information, like an article, a one minute audio summary of the article, and an article's first draft, as well as **other beads the bead is influenced by**, all contained in one unit.

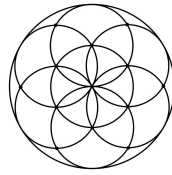
Players can **create** public and private beads, **collect** beads into public and private **decks**, and **gift, sell and trade** beads with other players. Players can also define the **scarcity** of their beads, minting a specific number as premium beads, the **minimum upvotes** necessary to access a bead, or mint **paid-subscriber-only** beads.

Beads can be also be co-created in [Glass Bead Sessions](#). A default GBS is a **2 player, audio-mediated, 1 minute per turn, 10 turn game**, it can be played with **2-16 players**, in **any media**, and **any length**. This means that players can choose the media that suits them best - words, audio, video, games, images, music, creative coding, etc. Both the resulting turns and games as a whole can be posted as beads.

Beads are organized by **topics**, each of which has its own **hierarchy**. An initial set of high-level abstractions - society, death, ego, etc - serves as the initial **topology**, but experienced players can create their own topologies, which players can use as the basis for new games.

Players can organize into private and public **guilds** where they play around specific topologies and game styles. An algorithm matches players with other players based on the encrypted psychological profiles they can voluntarily fill in, their collected beads and decks, and the players they follow.

Guilds share **files, equipment** and **housing** in a co-creative commons, and help each other produce optimal beads through an **internal bead hierarchy**



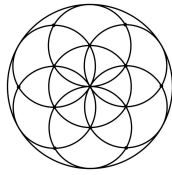
and **feedback relationships**. Guilds can publish beads under their communal name, and play Glass Bead Sessions with other guilds.

Any player or guild can receive **donations** and **subscriptions** that allow access to premium beads. Any bead can be **gilded**, the revenue then **distributed** amongst the cocreators.

Each player has their own **feed** following the games, players, topics and guilds they are interested in, and their own **queue**, which helps them organize the priority of information they need to integrate. A **Spaced Repetition System** allows for old cards to be automatically placed in the queue for optimal integration.

The resulting beads, their hierarchy, their influences, the psychoprofiles of the creators and cocreators, are all fed to **AI agents** who uses **machine learning** and **Generative Adversarial Networks** to generate **new variants of the beads**, which are then fed back to the players, who accept, discard and upvote the AI generated beads. Each player, guild, and the game itself has its own AI agent.

The aim is to facilitate **multi-level competition and cooperation** amongst knowledge generators, establish **multi-perspectival, transmedia meaning hierarchies**, and **have fun saving the goddamn world**.



Addendum

Castalia is a memetic evolution supraorganism.

The beads are the concentration of manifold perspectives into memplexes which are voted on by the players - the collective intelligence - thus establishing a transmedial meaning hierarchy.

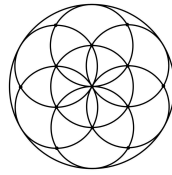
The game's time limits accelerate memetic generation rate, co-creation increases memetic cross-pollination, and daily, weekly, monthly and yearly championships increase competition.

The meaning hierarchy is fed to an AI, which generates memplexes of ever higher complexity and depth that are voted once more into the meaning hierarchy.

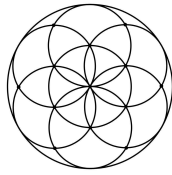
A high quality epistemological ecology is maintained by making the website invite only. As resources are distributed amongst all the players, the incentive to invite wisely is high.

The game is won when every possible bead has been made, and [Indra's Net](#) is complete.

The Glass Bead Game is therefore an infinite game.



What follows is a breakdown of game components, with references for coders, and screenshots of an initial design.



Bead

A bead is a hypercard: a multimedia holographic container that can be part of a deck, a game, a feed or another bead.

A bead is public or private, scarce or infinite.

Private bead can only be seen by the owners - players and guilds.

Public beads can be seen by anyone.

Scarce beads have Y copies and cannot be duplicated.

Infinite beads can be infinitely duplicated.

Beads can be purchased, shared, or unlocked when a players reaches Z upvotes.

Beads can be added to decks.

If it is part of a published game, you can see the game it came from.

If it is tagged, you can see the tags it has.

If it has previous iterations, you can browse the iterations.

If it has any forks, you can browse the forks.

You can start a new game from this move by simply replying, which creates a new static game, or by choosing a specific game style, which adds the media to the game lobby.

You can upvote or remove your upvote from a bead.

Bead.id: unique id number.

Bead.date: time of card creation.

Bead.creator: creator of card.

Bead.owner: owner of card.

Bead.points: number of upvotes.

Bead.media: text, (image, audio, video).

Bead.tag: tag a post, see which tags a card has.

Bead.game: see published games this card is a part of.

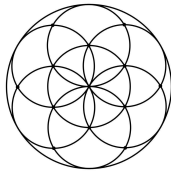
Bead.deck: see published decks this card is a part of.

Bead.forks: see fork tree of this card.

Bead.vote: upvote the card.

Bead.edition: card x of y (if card is scarce).

Bead.privacy: private/public.



9:41 AM



Ω Θ

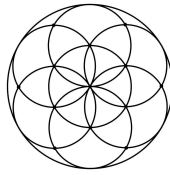
12:23:43
6/12/18

250 All games end in death.
▽ A fork from this move.

Lucid (1645)



Top Left: Symbolic tags: End, Death
Top Right: Timestamp
Middle Number: Upvote count
Bottom Left: Player + Total points
Bottom right: Upvote/ Start Game symbols



Game

A game is a thread of cards constrained by time and media played by 1-4 players. A game can also be constrained by a tag, have a previous card as a starting point, or be thematically open. A game can be realtime, with a time constraint and a limited amount of players, or static, where anyone can reply whenever.

During a game, each player has a limited amount of time to respond to the other players card. The aim of the game is to reply as meaningfully to the previous card, keeping to the theme where applicable.

Any public card is implicitly the first move of a static game.

You can propose a game to any player from their profile.

Game.realtime: time-constrained thread, 2 player.

Game.static: open-ended thread, multiplayer (like reddit).

Game.moves: number of moves in a game

Game.tag: play a game about a tag or no tag

Game.tag.random

Game.time: time per move

Profile.name

Profile.point

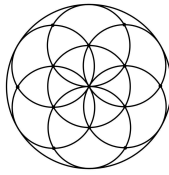
Profile.level

Profile.turn: whose turn is it.

Bead.time.left

Bead.vote

Bead.remaining: how many more cards until Game.moves is reached



9:41 AM

100%



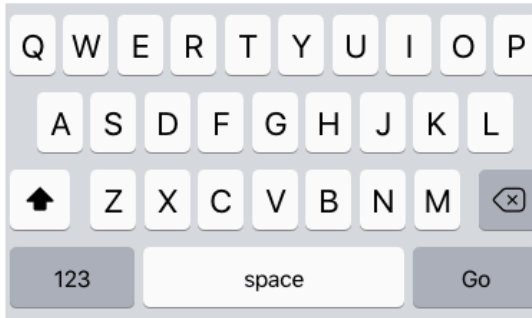
Lucid (1675)

7/10

0:23

- ☐ 1. All games end in death.
- ☐ 1.1. Never say never.
- ☐ 2. The reiteration of the fractal structure is the reproductive process
- ☐ 3. Culture is collective mind.
- ☐ 3.1 Culture is mind writ large.
- ☐ 3.1.1 Mind is culture writ small.

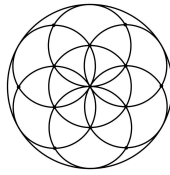
3.1.2. Input



Top right: Cocreator

Top center: Moves left in game

Top Right: Move time left



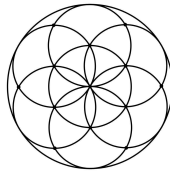
Deck

A deck is a collection of beads.

A deck can be public or private, scarce or common. A public deck can be seen by anyone; a private deck by the owner; a scarce deck only visible on the owner's profile; a common deck can be copied by anyone.

A deck can be personal or cocreative. Personal decks can be changed by the owner - cocreative decks by multiple owners.

The Castalia algorithm analyzes the contents of the player's decks to make new suggestions.

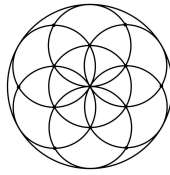


Guild

A guild is a private/public group of 4+ players which can play games with an internal hierarchy, and post to the main game under their guild name.

Guilds can also play with other guilds in cocreative and codestructive formats.

Guilds share a cocreative commons where they share files, summaries, and memeplexes not fit for publication, but that serve as base material for the development of higher quality memeplexes.



Tags

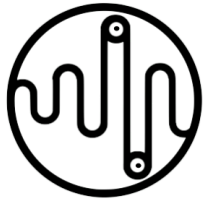
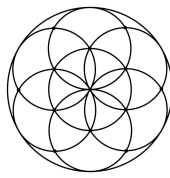
Tags are a set of fundamental concepts that help organize the memetic content. Players are encouraged to create definitions for each tag. Players can follow initiatory paths where more experienced players help them progressively generate sharp definitions through a feedback relationship.

Tag List 0.1

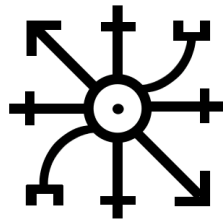
Art/Time/Language
Paradox/Death/War
Beginning/Game/End
History/Present/Future
Society/Justice/Slavery
Empathy/Truth/Lie
Network/Interconnection/Religion
Chaos/Gift/Music

When you browse any tags, you first see the top 10 upvoted cards. You can browse deeper.

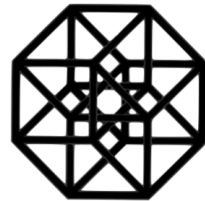
You can browse by multiple tags simultaneously, for example, paradox, history and chaos.



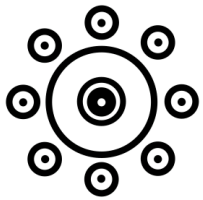
ART



SOCIETY



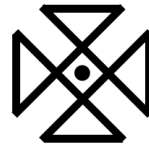
META-
MODERNISM



RITUAL



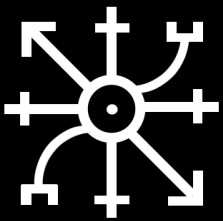
POWER



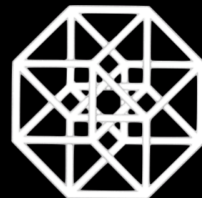
ETERNITY



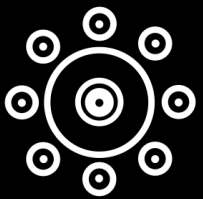
ART



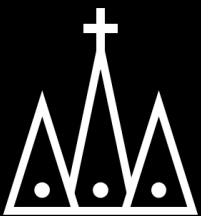
SOCIETY



META-
MODERNISM



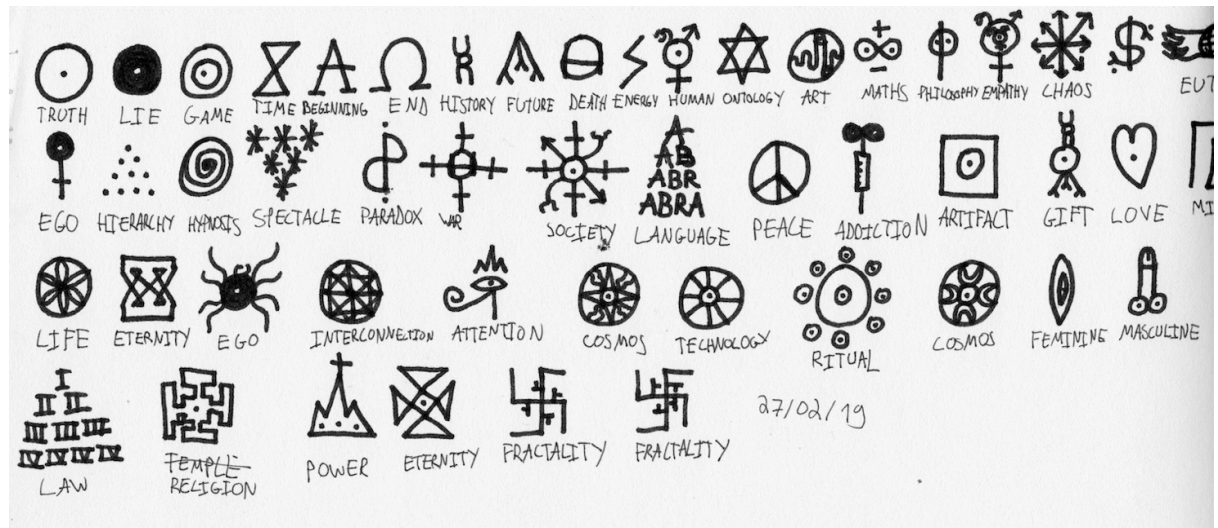
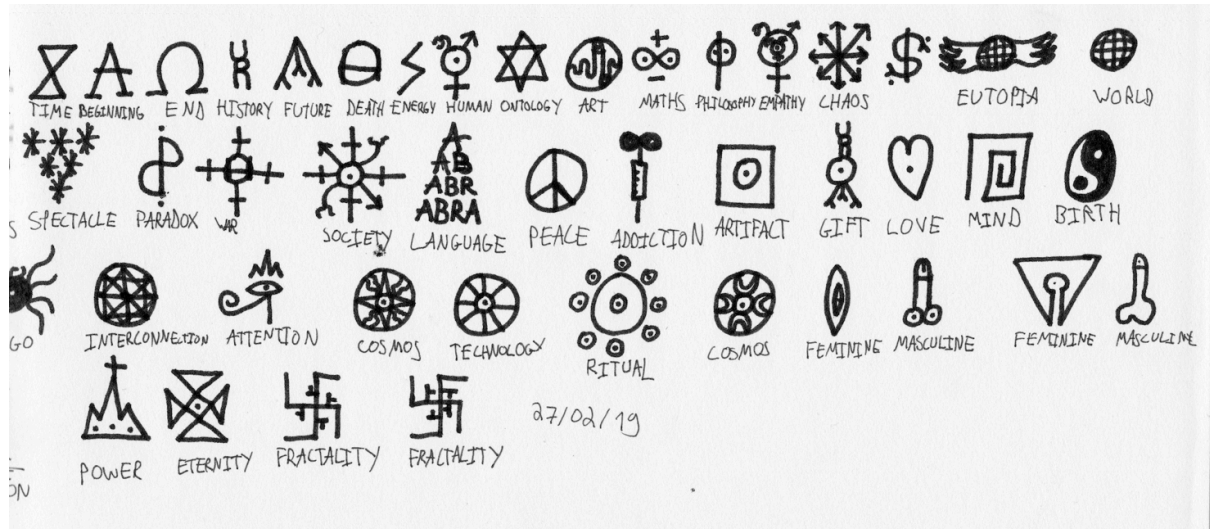
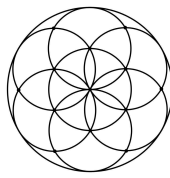
RITUAL



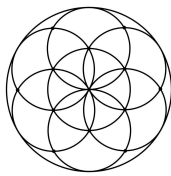
POWER



ETERNITY



Tag drafts



TRUTH



HUMAN



ENERGY



BEAUTY



BEGINNING



END



BIRTH



DEATH



EGO



ATTENTION



ART



EMPATHY



EUTOPIA



FUTURE



GAME



GIFT



HISTORY



COSMOS



TIME



LIFE



ADDICTION



PARADOX



SHADOW



SOCIETY



9:41 AM

100%



Tags ▾



Eutopia	Play	Eutopia	Logic	Meaning
Gender	War	Territory	Memory	Gender
Memetics	Taboo	Memetics	Conflict	Government
Eternity	Ritual	Nature	Self	Love
Power	Power	Power	Time	Symbol
Identity	Poetry	Identity	Status	Pattern
Violence	Sex	Dream	Hope	Chaos

More ▾

250



All games end in death.

115



Never say never.

68



All death ends in games.

55

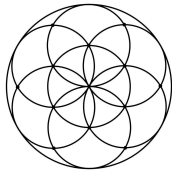


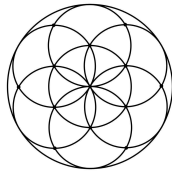
The meaning of death is rebirth.

14



Death is an illusion coveted by the ego.





Queue

The queue is the deck of information priority.

Players add cards to the queue and order them according to priority.

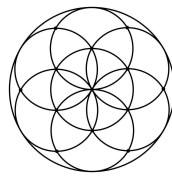
Any card can be added to the top of the queue, next in queue, or end of queue.

A queue can be rigid or flexible. A rigid queue has to be followed in the determined order. A flexible queue order can be rearranged.

Players and collective avatars have queues.

A collective avatar is a dyad, triad, or guild.

A collective avatar queue is cocreative: any member can add to the queue.



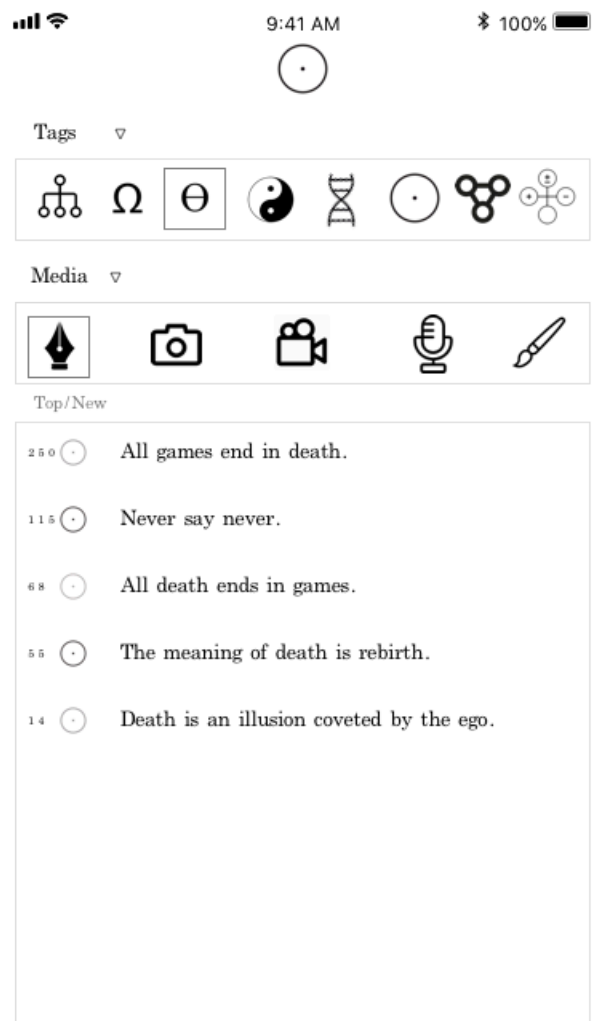
Feed

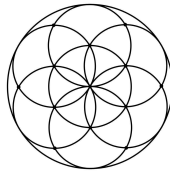
On the stream you can browse the latest cards. You can organize by top, new, by tag, filter by media.

Feed.organize: top, new, tags

Feed.card.points

Feed.filter.media


























Game Lobby

In the game lobby you can browse open games by tags, media, card, constraints.

You can see the player, the media constraints, the time constraint, the tag, the beginning card. You can filter games by media, time, tag.

 Player	 Rating	Time	Mode	
 Anonymous		5+0	 Casual	
 Anonymous		3+2	 Casual	
 Anonymous		3+0	 Casual	
 Anonymous		2+1	 Casual	
 Anonymous		2+6	 Casual	
 Anonymous		5+3	 Casual	
 Anonymous		25+0	 Casual	
— V A R I A N T —				
 Anonymous		3+4	 Casual	
 Anonymous		3+2	 Casual	


Lichess Lobby as example


Variant

☒ Standard☒ Crazyhouse☒ Chess960☒ King of the Hill☒ Three-check☒ Antichess☒ Atomic☒ Horde☒ Racing Kings

Time control

☒ Bullet - Less than 3 minutes☒ Blitz - Less than 8 minutes☒ Rapid - Less than 25 minutes☒ Classical - Less than 360 minutes

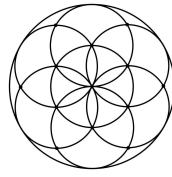
 Reset

 Submit

Lichess Filter as example

Lobby.game

Lobby.game.player

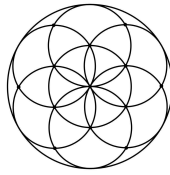


Lobby.game.tag

Lobby.game.media

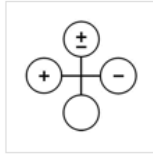
Lobby.game.constraint

Lobby.game.card



9:41 AM

100%



240 All games end in death.

13 Never say never.

66 The reiteration of the fractal structure is the reproductive process

4 Culture is mind writ large.

[More..](#)

Friends online

Top Streamers

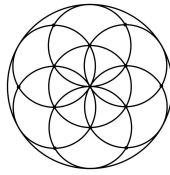
Rough Home Page

Top: Logo

Symbols: Game, Feedback, Share

Center: Latest moves

Bottom: Social



Profile

On a users profile you can see their profile name, their avatar, their overall points, their portfolio, their dictionary, if they are online, and their ideogram when applicable.

You can propose a player a game through their profile, or to become a feedback peer.

Profile.name: username

Profile.password

Profile.points: overall points

Profile.level: Initiation level: Initiate, Apprentice, Magister

Profile.creation: creation date

Profile.status: on/offline

Profile.game: propose a game through the profile.

Profile.feed: top, all moves.

Profile.avatar

9:41 AM

100%

X:A
XX:M
XXX:I

Lucid (1675)

60

39

14

5

4

2

439. All games end in death.

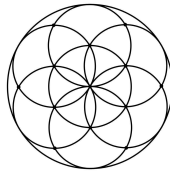
509. Never say never.

306. The reiteration of the fractal structure is the reproductive process

437. Culture is collective mind.

690. Culture is mind writ large.

1034. Mind is culture writ small.



Dictionary

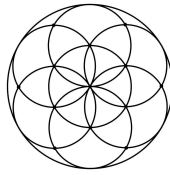
The dictionary is the set of multilevel cards made by an individual, organized by tags.

When browsing someone's cards, by clicking on any tag you will bring up their first level definition, which is a size constrained card. For example, a written first definition would be 10 words. A video first definition could be 1 minute.

Definition lengths increase with the levels: 1. 10 words; 2. 50 words; 3. 100 words; 4. 500 words; 5. 1000 words; 5000, 10000, etc.

You would see all the tags, in their symbolic or written form, and the different levels. The tags would become silver and golden up to level 3, after which they would be magistered. You need to magister all 3 levels before new tags are opened.

When browsing a player's moves, or when playing a game with them, you can hover over any of the defined words and their first level definition will appear in a pop up.



Initiation

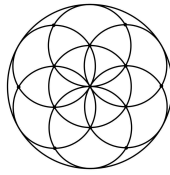
The initiation is the creation of your own dictionary definitions with the help of a magister.

A magister is someone who has already learned that set of tags.

Magisters can set on your profile that they want to initiate others. You can even browse magisters and look at their definitions.

You then play games with them to help them define.

You don't have to choose the path of initiation. You can choose any tag and start to play from there. You also don't have to play with tags.



Avatar



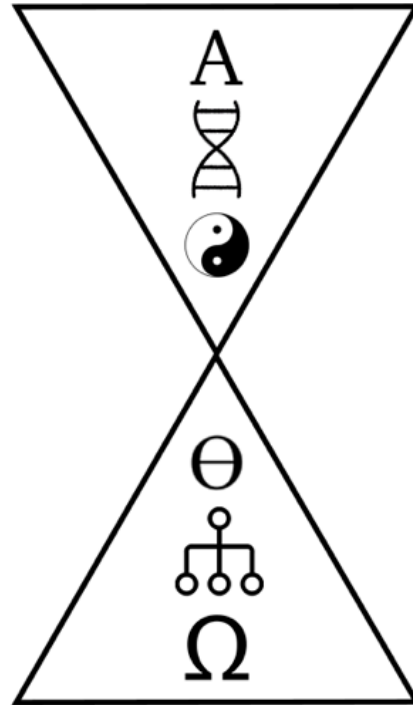
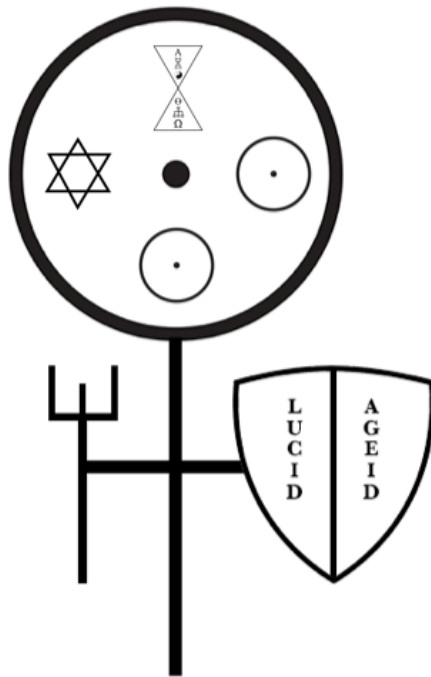
9:41 AM

100%



9:41 AM

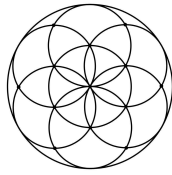
100%



Ideogrammatic Multi-level Avatar. This multi level symbol allows the player to create a personal symbolic hierarchy of concepts. The pitchfork on the left is a placeholder for the chosen 'weapon' of the player: a pen, a camera, a brush, etc. The shield shows guildic affiliations and badges won by following initiatory paths.

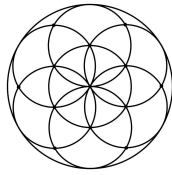
On the right a zoom in of the Time symbol, with sub symbols: Beginning, History, Birth, Death, Future, End.

The Avatar is an optional initiatory path.



Dyad-Triad

A dyad/triad is a group of two/three players who can post to the main game under one username. They can all connect at the same time and play amongst each other.



Multiplayer mode

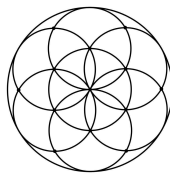
Multiplayer games take various forms.

3-4 player, where each player takes their turn.

4-8 player, where teams of 2 play against each other.

Dyad/triad vs dyad/triad

Guild vs guild



Appendix 1 – First Concept Doc

The name of the game is Minitrue.

Minitrue is a minitruth cocreation game.

The truth is the synergy of all perspectives.

Each perspective produces its own minitruths.

The truth is the synergy of all minitruths.

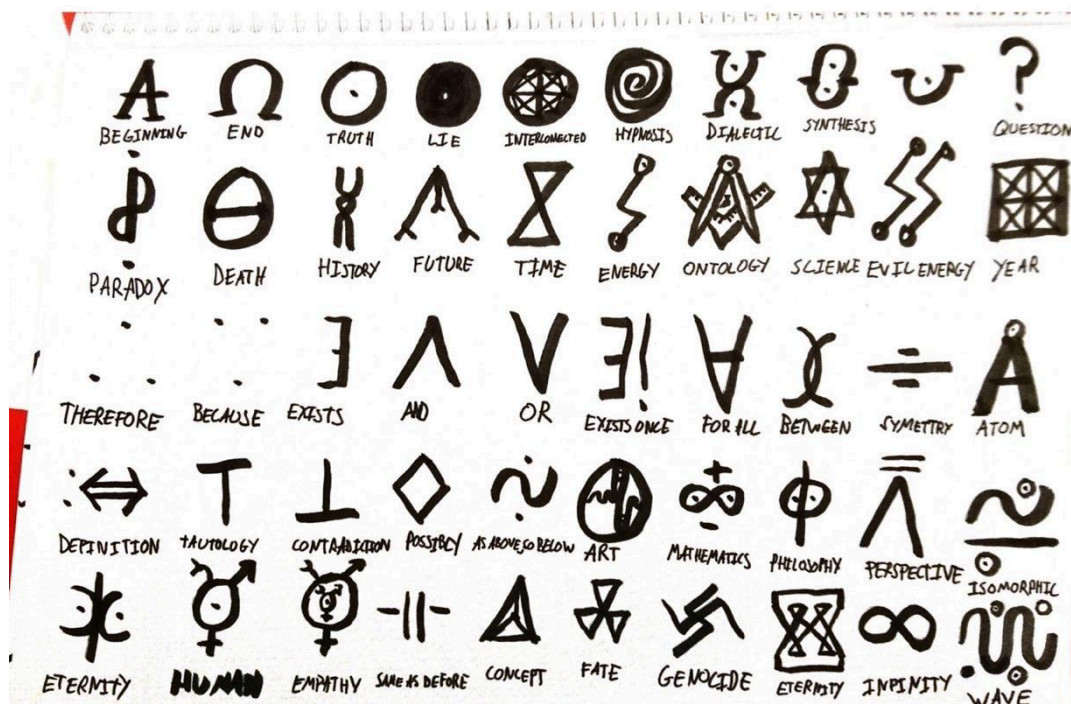
Minitrue is composed of truth games.

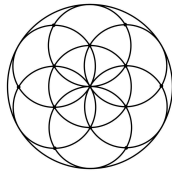
A truth game facilitates the truth process.

The truth process is cocreation of minitruths.

Players cooperate and compete with each other to create their best minitruths.

Minitruths are organised according to the language of visual philosophy. Visual philosophy ideogramatically represents truth dimensions. Truth dimensions plot the space/time in which life takes place.





Minitruths can belong to multiple dimensions simultaneously.

Each member gives their own linguistic definition to the truth dimensions. In fact, each member can create a concentrated definition of any word in their personal dictionary.

Each definition has three layers, Grok, Skim, Master. Grok has a limit of 15 words. Skim, 15-45. Master, 45-135.

Upon hover, a reader can consult the definition for key concepts within each definition.

Minitruths are cocreated through truth games. Truth games place restraints on the cocreative process to concentrate truth. The best minitruth is the most truth in the smallest form.

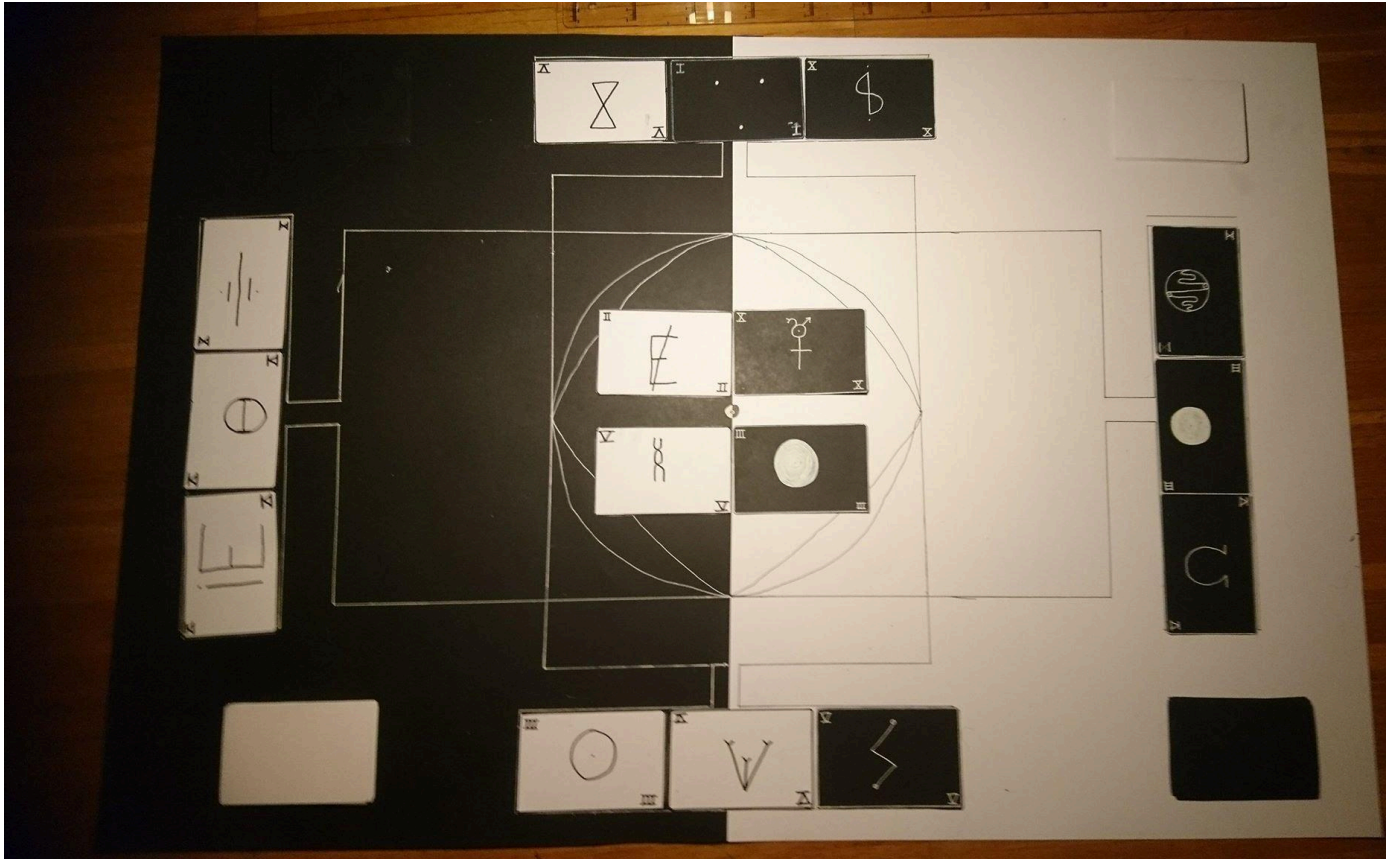
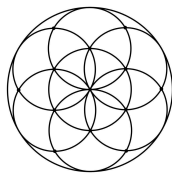
In the Glass Bead Game, you are initiated into visual philosophy through a truth-association Collectible Card Game.

Each card has its own symbol.

You progress by associating cards into written minitruths constrained by word count and time. When you have learned a number of cards, you are initiated into the next level of play.

Each card has its own melody. Each association has its own harmony.

The Glass Bead Game allows one to simultaneously combine visual, linguistic and musical truth.



Glass Bead Game Prototype

In Veracity, you battle and collaborate in a turn by turn truth-association game. In its most basic form, you take turns stating a minitruth in less than 15 words and less than thirty seconds, associating off each others truths to higher levels of synergy.

After this initiation, the game expands to include a wide range of customisable restraints: time per turn, number of words, type of media, chess clock, combo points, etc. After a game, you can decide to publish any of the results of the game.

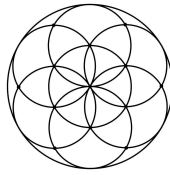
The best minitruths are then voted on by the members and recorded in a database.

After being initiated into these two games, more games open up.

In Kairos, you record the present — the here and now — through citizen media, journals, digital scrapbooks, digital curation.

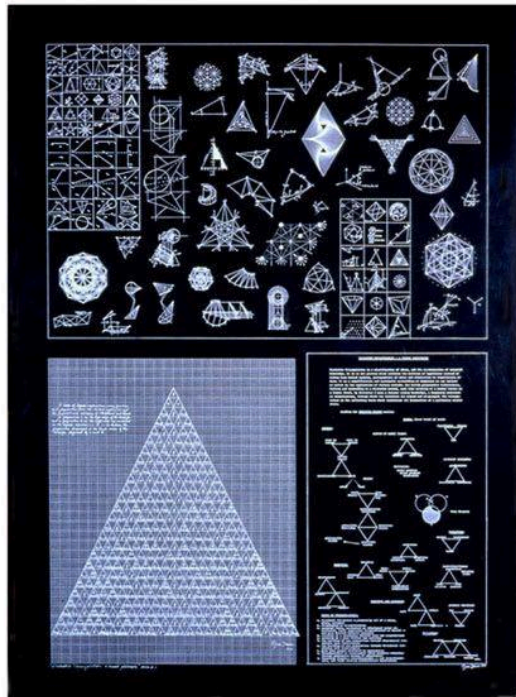
In Priori, you create an intergenerational bridge to the past. Through multimedia Retrospectives, you help celebrate the lives of those worth celebrating.

In Janus, you enter mentor/mentee and peer-to-peer relationships to help others

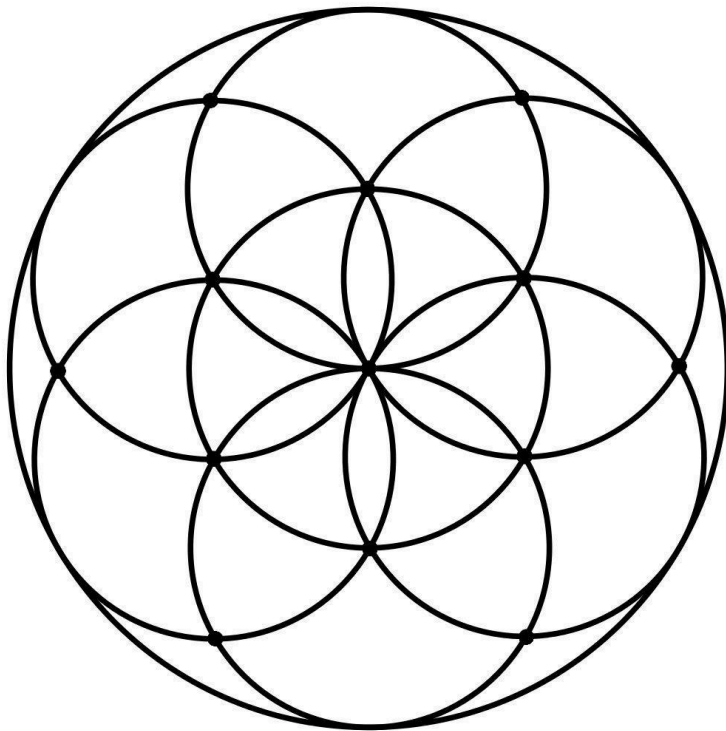


cultivate their truth process.

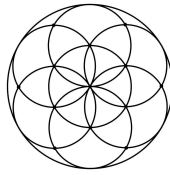
In Truth Forms, you organize minitruths into sacred geometrical forms: the angular Concept Matrix or the circular Truth Chain and Truth Flower.



Dialectic Triangulation: A Visual Philosophy, (Includes the Human Argument)
Monoprint, 37 1/4" x 25 1/4"
© 1967-69 Agnes Denes



Truth Flower



Minitrue's aesthetic is based on visual entropy: showing the most with the least.

Minitrue's rhetoric is based on political and religious synergy: Castalia.

Minitrue's ethic is based on the ecological turn: everyone is responsible for everyone.

Each member has a donation page. Each member can show their truth process, and receive patronage.

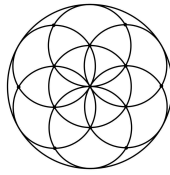
Members are encouraged to share their drafts to reveal the magic behind the art.

Minitrue embraces all languages and all media. Minitrue is Open Source and Creative Commons.

Minitrue's slogan: *Ab Veritas Eutopia*.

Once every two years, Minitrue organizes The Floral Games: a worldwide minitruth competition.

The game is infinite.



Appendix 2 – 2nd concept document

The name of the game is Minitrue.

Minitrue is the metagame of the truth process.

The truth process is the evolutionary synergy of all perspectives.

Each perspective produces its own truth units — minitruths.

A minitruth is a simplex meme: high depth and high complexity in simple code.

(Maximum information, minimum entropy.)

Truth games accelerate the evolution of minitruths.

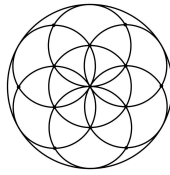
In a truth game, players take turns cocreating minitruths within form and time constraints. The observers vote the minitruths into a hierarchy of truth.

A form constraint — 10 words — increases information concentration and transmission facility.

Form constraints range from 10 to 32000 words. A time constraint — 10 seconds per turn — increases minitruth generation rate.

Time constraints range from 10 seconds to 1 month.

Hierarchical classification gives longevity to the best minitruths, increasing the simplicity of the minitruth pool.



Within a game, moves are hierarchically organised to mark the derivation from a previous minitruth, or the creation of a new.

The art of the game is placing novel associations on the correct hierarchical level. A 20 move, 10 word game:

1. All games end in death.

1.1 If all games end in death, what dies?

1.1.1. At the end of each game, the players die.

1.1.1.1 Do all the players have to die?

2. The prize for life's winners is immortality.

2.1 Immortality is punishment as much as prize.

3. The evil eye punishes with blinkless gaze.

3.1 It doesn't blink but does it ever sleep?

3.1.1. The sleepless rise toward divinity.

4. 'Sleep is 1/60th the part of death.'

5. The mind fractions what the body integrates.

6. Sleep or no, the night undoes the work of the day.

7. The sun's first kiss belongs to the first to rise.

7.1 Doesn't everything improve with practice?

7.1.1. Malpractice decays aim.

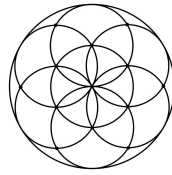
8. Skill is forgetting.

8.1. Skill is forgetting what we don't know.

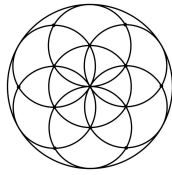
8.1.1. Skill is knowing without thinking.

9. Two truths make three truths.

10. Synthesis would be a nice dream.



Games evolve in complexity from short and linguistic to long and transmedial.



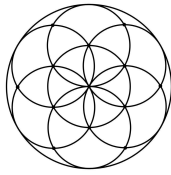
Minitrue synergises collective and artificial intelligence.

The CI -- The Ministry -- generates the minitruths and classifies them in a truth hierarchy.

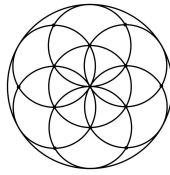
The AI -- The Minister -- reads (NLP) the truth hierarchy and generates its own minitruths.

The CI votes on the AI's minitruths, teaching the AI to produce better and better generations.

The AI learns to produce minitruths of increasing simplicity until it surpasses the CI.



The Minister will rule the world.



Appendix 3 – Further Features

Feedback relationships

Annotate everything

minigit: Fork any move

Spaced Repetition System for learning favourites.

Writing concentration [environment](#)

Casting: streaming games to other players

Game sharding

Competitions: daily, weekly, monthly, yearly

Xp points for tags.

Tag sounds: Each symbol a pulse, an ambient loop.

Meditation environment

Integrate libgen, scihub

Mathematics, code

process: reveal drafts

collaborative drawing

autopodcasting

tournaments

Tractatus game