

# Traversing Gaia

*Digital Board Game on Earth Science*

# 1 - 5 Player Board Game

*10 - 40 minutes*

*Smaller Components (Multiple Phases)*

# Traversing Gaia

Scenario: Demons took control of the earth, and wiped out almost everyone on the surface.

You and a bunch of other tribes leaders got stuck in the middle of the earth

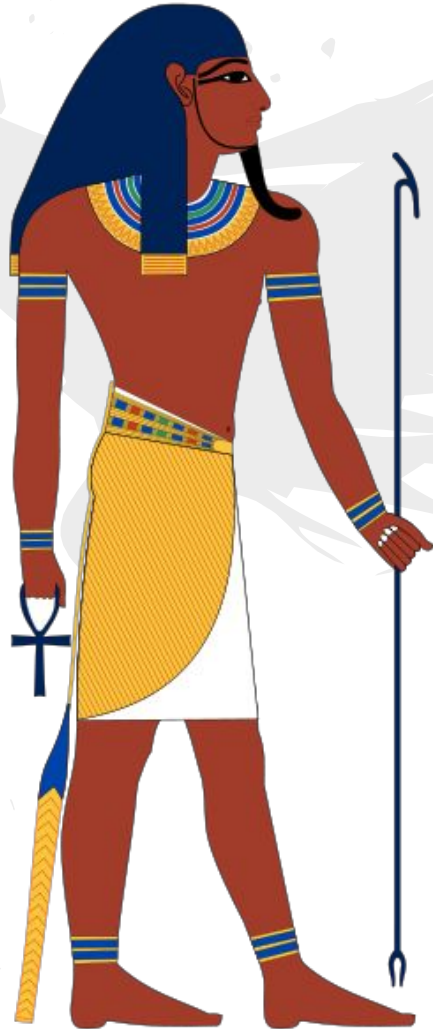
Each Player represents a mystical leader of their tribe

Objective: Compete and Cooperate with Other players To Progress Through Earth to get to the top of the crust safely

In order to progress to the next layer...

Crust	Phase V
Upper Mesosphere	Phase IV
Lower Mesosphere	Phase III
Outer Core	Phase II
Inner Core	Phase I

# Traversing Gaia



Satisfy the demands of a Demon God

Demon Gods protecting each layer

He / She looks at you and says, are you  
and your tribe worthy

He / She determines that by what you  
have to show from your stay in the layer  
of the earth that which s/he is protecting

# Gameplay

Every Turn you allocate people to do following:

- Explore (Discover what's available)
- Labor (Earn Gather Points)
- Reveal (See one element of Judgment)
- Gather/Conquer (Use Gather Points)**
- Breed (Increase Tribe Size)
- Shop (Use Gather Points to buy Tools)

# Gameplay

Every turn players collect objects (or conquer) of the layer they are in

Example:

Phase I - Inner Core

Shortest Phase

Only Minerals

Rock



Volcanoes



Tectonic Plates



Minerals



# Gameplay - Card

Every mineral has several qualities:  
Cleavage, Fracture, Color, Density,  
Hardness, etc.

The God will Judge You  
Quantitatively & Qualitatively  
(Preference for certain densities,  
etc.)

Story Description of why the God  
needs these certain characteristics  
(Help comprehend the properties)  
(Engage in Real World Transfer)

Gold

10



No Cleavage

Metallic

Opaque

2.5 -3 Hardness

# Gameplay - God Check

After Turn 5 - The God Checks In On You

Everyone loses the game if any one tribe is insufficient

You win a favor point if you were the best

Favor points can be exchanged for



# ZunTzu



Simple!

XML - Markup Language

Images - counters, cards, maps, scenarios, etc

Placement / You develop the rules / what's legal

Play over the internet

Built in Voice Communication

# ZunTzu



Zuntzu.com

# Why?

Board Games | Informal Learning

Non-Random Board Game Mechanics

Entertaining

Educational Theories that can be applied to  
Games

# Games can be...

Very Constructivist & Cognitivist

- Focus On the User**, Interacting With Each Other

- Gaining Information Through the Cards

Increase Self-Efficacy

- Confidence** in Learning Material

# Increasing Retention

Alternative Learning Situation

**Player Engagement** (Choice + Care About End Results)

Scaffolding - Structure - Phases - Simple to Complex

# Narratives Develop

Backdrop / Scenario to Dive Into

Players thinking about their decisions,  
**constructing stories** based off of their decisions  
, interactions with the players, interactions with  
the characters

**Positive Emotional Design** -> Positive Recall of  
Material

# What?

California - Earth Science Standards

NY Secondary School Core Curriculum

ETS Earth and Space Sciences: Content  
Knowledge