

The
AGE Model
of
Game Play and Design

by Brian Hollenbeck
(cc) 2005, 2006

Version 1.1.a



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Version 1.a.1

AGE Model : Overview

Introduction

This is the first published version of a conceptual model for understanding the play, and in turn the design, of games of all sorts. While the AGE Model can be applied to games such as Monopoly™, and sports such as baseball, it was created specifically with roleplaying games (RPGs) in mind. As such, I will be referring mainly to roleplaying games in examples throughout the document.

If you have come across this document in some manner unconnected with RPGs, I would suggest reading some basic introductions to them first, in order to understand many of the references that I will be making. Some good examples available online at the time of this writing:

<http://www.theescapist.com/>
<http://www.roleplay.org/>

Also, there are games which are considered to be axiomatic, or demonstrative of the first principles of the model. The reader is encouraged to obtain, or at least be familiar with, the games listed, in order to facilitate understanding. A resource for each game is given below.

Chess: <http://en.wikipedia.org/wiki/Chess>
 Jeepform LARP (Live-Action Role-Play): <http://jeepen.org/dict/>
Primetime Adventures by Matt Wilson: <http://www.dog-eared-designs.com/games.html>
 The *SimCity* series by Maxis/Electronic Arts: <http://simcity.ea.com/>
The Sims by Maxis/Electronic Arts: <http://thesims.ea.com>

Next, I'd like to thank the communities at both Story Games and RPG.net for their continued inspiration, and the gaming blogosphere for always stirring the pot when everyone else 'just wanted to play games'.

And finally, this work is dedicated to my wife Amy, without whom no fire would be lit under my ass.

- Brian "Kuma" Hollenbeck, October 2005.

VERSION 1.1.a - July 2006 - Note:

This is version 1.1.a of the AGE Model. It supercedes any previous version of the document. If you have hosted or printed copies of earlier documents, please know that the model has changed significantly. These changes deal mostly with the nature of the Emulation apex of the model and the other parts associated with it. Also, the term 'Narrative' has an altered meaning, and the Two Narratives in the original document are now referred to as the Two Times.

The AGE Model : Discussion

Purpose and Origins

Much of modern RPG theory has, since its inception with the Threefold Model¹, been an attempt to understand the modes of play in which players engage. The Threefold Model itself takes a *cognitive* approach to roleplaying – its terms are expressed in terms of the thought processes of the players involved.

GNS² (Gamism, Narrativism and Simulationism - the expanded version of which is now referred to as The Big Model), deals primarily with the *social* aspects of roleplaying. The primary constructive force in GNS is the ‘Creative Agenda’, in which player’s playing preferences are expressed during play and either conflict or mesh with one another. Enmeshed play is “functional”, conflicting agendas are “dysfunctional”. GNS also takes the extra step of suggesting that game designs can enforce one of the Creative Agenda over the others.

The Process Model of Roleplaying³ is essentially *transactional* – it describes the act of roleplay as a series of processes and sub-processes which are engaged between the players. Whether these processes have a positive or negative impact determines their relative worth to the players – positive processes are to be encouraged, negative processes eliminated.

In contrast to these approaches, the AGE Model uses an *ecological* approach to games, gaming and roleplaying. Instead of divining the internal motives of the players or the group, it focuses instead on the shared environments of the players – physical, mental and social. It then describes relationships between the players, the players and the environments, and lastly the impact of the ‘invisible player’ involved in the creation of these environments – the game itself.

This last is the most important distinction of the AGE Model – the design and implementation of the game’s rules by the players is fundamental in the construction of the shared gaming environments; by altering the rules and presentation of the game, you alter the social dynamics and the mental models of the players. Therefore, the design of the game is as important to the emergent mental and social spaces of the players as their group history or prior experiences.

Part of this distinction is the premise that all games share these same principles: Game, Art and Emulation – but that different games (and different taxonomic groupings of games) reinforce different principles. This is not a new idea. However, the AGE Model suggests that differences between taxonomies is minor, and what may appear to be very disparate forms of games are, in fact, right next door to each other.

As such, the AGE Model seeks to break down the traditional barriers between board games, card games, tabletop roleplaying games and digital gameforms – each of these has strengths and weaknesses, and each can be informed by the design parameters of the other.

The AGE Model : Overview

The Three Principles

The AGE in “AGE Model” is an acronym, standing for the core principles of **Art**, **Game** and **Emulation** (Em). I’ll begin by defining these terms as I’ve come to understand them in relation to game play.

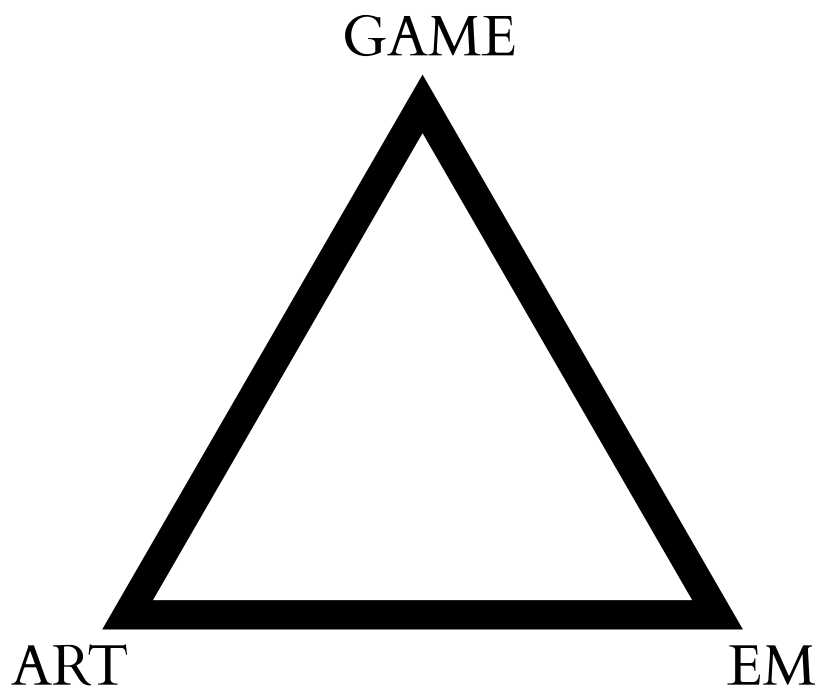
Art :: Games are a means of *expression*, both for the designer and the players. Games are not, in themselves, the primary *medium* of expression – the *play* of the game is the medium by which the ideas are expressed. The resources representative of the artistic principle are primarily mental in nature.

Game :: The central characteristic of a game is the implicit or explicit *structure* granted them by rules. Without the structure of rules, a game devolves into an *activity*. There is no such thing as a game without rules. The physical aspects of any game are primarily gamic - or governed by the game principle.

Emulation :: A game is an attempt by the players to *recreate an experience*. When the experience being emulated is equated with “some part observable reality”, the emulation component of a game becomes a *simulation*. Emulation is primarily a social principle, as it relies on the negotiation of all the players to form coherently. Without social negotiation, emulation cannot take place.

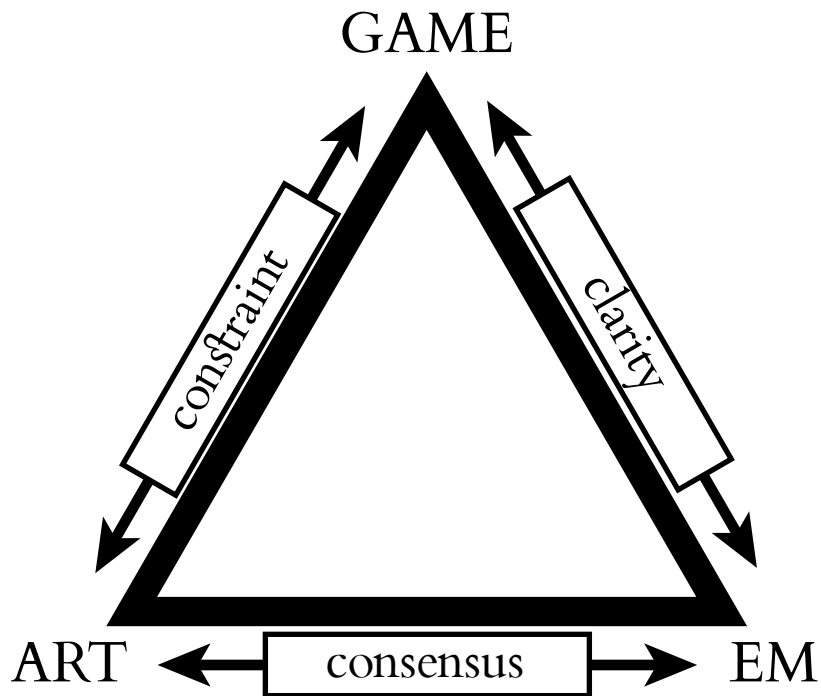
These three principles can be understood to form a continuum, with each principle occupying the corner of a triangle, like so:

THE THREE PRINCIPLES



Each side of the triangle describes a different dimension of the model:

THE THREE AXES



Art – Game :: This axis defines the amount of *constraint* present in the game. Designs that allow for little individual expression (chess is an axiomatic example) are at the Game end of the spectrum. Games which encourage or are defined in part by player choice and expression tend towards the Art vertex.

Game – Emulation :: The level of *clarity* present in a game is measured on this axis. Games in which the symbol systems are more simplistic, and all of the rules and conventions of play are made explicit (as in a rulebook), tend towards the Gamic. Games where complex symbolic representations are present, or in which players rely on numerous conventions outside of the written rules, or implicit play, tend towards the Emulative.

Emulation – Art :: On this axis is measured the relative *consensus* of the game. If the game requires that players reach a common level of understanding about any given event, it tends towards the Emulation vertex. If different understandings of the events of the game are allowed or even required, then it tends towards the Art vertex.

The continuum that these principles form is an implicit part of the act of play, not the process of design. While a game can certainly be designed with these principles in mind, and the designer can consciously encourage one principle or the other, it is during the play of the game that these principles are brought into vibrant existence. As such, the game itself (and therefore the designer) has only a remote ability to enforce any one mode. This lack of authoritarianism is not something to be concerned over – it is the primary attraction of gaming.

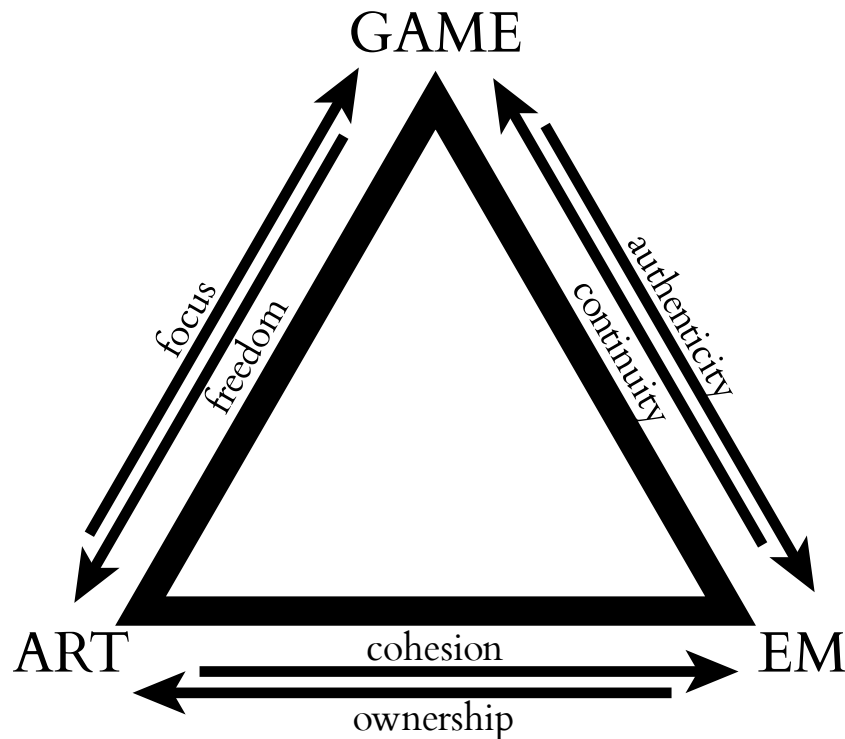
Any influence that the designer has over the play of the game must take advantage of the natural forces that are at work during the course of the act of play. The forces are enumerated in the next section.

The AGE Model : Overview

The Six Forces

In each of the three axes (or dimensions) of the model, there is a force at work that pushes play towards one or another of the vertices. Each game, and each group of players, reaches an equilibrium where these forces are in balance and the play of the game flows naturally. Each axis has two forces associated with it:

THE SIX FORCES



GAME - EM Forces

Authenticity: Games are an attempt to recreate an experience, but they are not (or perhaps cannot) be a completely true representation of that experience. The desire to make that experience as true, or *authentic*, as possible, pushes the game away from arbitrary behaviors which are created for the sake of expediency and towards the emulative, which seeks to make the experience as authentic as possible.

Continuity: The arbitrariness is part of the attraction of games, however. In most experience, outside influences are numerous and interconnected in numerous subtle ways. Quite literally, anything is possible and anything can happen. By enumerating and simplifying the influences at work in a given situation, games increase the ability of the players to completely understand the variables involved, and increase the *continuity*, or consistency of result, of choices made in the game.

EM-ART Forces

Ownership: *Ownership* is the idea that a player can take a game and make it their own. While each game is (or perhaps should be) a matter of complete consensus between all of the players, ownership is the drive of each player to create or select strategies which are indicative of their individual conception of the game - the primacy of the player over the group.

Cohesion: Opposing the will of the individual is the need for a common understanding of the game being played. The force of *cohesion* is the desire to act in concert, and to create a shared experience, pushes the group back together. Genre is a great generator of cohesion; the desire to create an experience that “feels right” within a genre (i.e. science-fiction) or milieu (i.e. Star Trek) motivates players towards greater cohesion.

ART - GAME Forces

Focus: *Focus* is the restriction of player choice in order to channel play into certain patterns. By restricting player choice, the remaining options become the main avenues of expression. This interplay between the rule structure and expressive play generates novel strategies and encourages creative problem-solving.

Freedom: Conversely, *freedom* is the primacy of player expression over gamic structure. Games with greater degrees of freedom allow for unique experiences within the same game. With greater freedom, however, comes the likelihood of situations where the rules are ambiguous or non-existent.

The forces on separate axes moving towards the same vertex are complimentary to one another, as are their opposing forces. For example, Focus and Continuity reinforce each other - a game which has fewer choices for the players to make also increases the consistency of the game experience for the players. Similarly, a game with a large degree of freedom also allows for more authentic experiences, since a larger number of factors can be brought into play.

The medium through which these forces are brought into play are the resources which are available for the players to manipulate. These resources are detailed in the next section.

The AGE Model : Overview

The Four Resources

The rules of a game can be understood as *a collection of legal processes for creation, destruction, and exchange of resources from one class to another, or to different states within a class*. Stated another way, the rules of a game create the structure of the game’s *resource economy*.

During the course of play, players will exchange these four types of resources according to the rules of the game. This exchange is vital, since a game with only static resources is incapable of change. For example, a chessboard where none of the pieces can be moved is a completely static economy. It’s also a very dull game.

There are four broad classes of resources which players utilize during the play of a game:

Symbolic :: First and foremost, games provide players with resources which *comprise a formal symbol system defined by the ruleset*. This includes any physical pieces of the game, such as pawns, tokens, and boards, the player’s body (if it’s used extensively, as in a sport), as well as character sheets and their contents. The rules themselves are a symbolic resource as well.

Imaginative :: Imaginative resources are comprised of the *mental faculties, collected experiences, and informational states of the players*. While the symbolic resources of the game are the most obvious parts, the imaginative resources are the most important in terms of the play of any game, since it is in the mind of the players that the game is played.

Narrative :: Resources which *manipulate the flow of time or space in which the game takes place* are narrative in nature. Narrative resources are almost solely present in roleplaying games, so far as I have been able to establish. One possible use of a narrative resource outside of RPGs is the “time-out”, in which the action of a game is suspended at the behest of a single player or team.

Social :: Lastly, players utilize their *ability to understand, manipulate and cooperate with others*. Games are, by their very nature, social activities, and as such must be understood as dynamic social structures. Most games are not explicit in the social aspects to their play – however, these structures emerge almost immediately, and are often grasped by players on an intuitive level (except for young children).

In the case of RPGs and other games which exist primarily in the imaginations of the players, players will also discover and invent new resources. In order to understand where these new resources reside in the game, the next section discusses the three *spaces* of gameplay.

The AGE Model : Overview

The Three Spaces

In the AGE Model, there are three *spaces* in which the resources described above reside, and which are defined in large part by the Three Principles (p. 4):

Gamespace :: The gamespace represents *all possible actions that a player may take, the resources they are given to perform these actions with, and the legal processes by which the player may exchange resources within the game’s economy, as defined by the ruleset*. Play can be visualized as a wandering series of paths and loops taken through the gamespace, as players follow various rule patterns. While the gamespace begins as the space of possible actions as presented in the rules, throughout the course of play (by mutual consent), it may be altered to encompass new possibilities and to remove others.

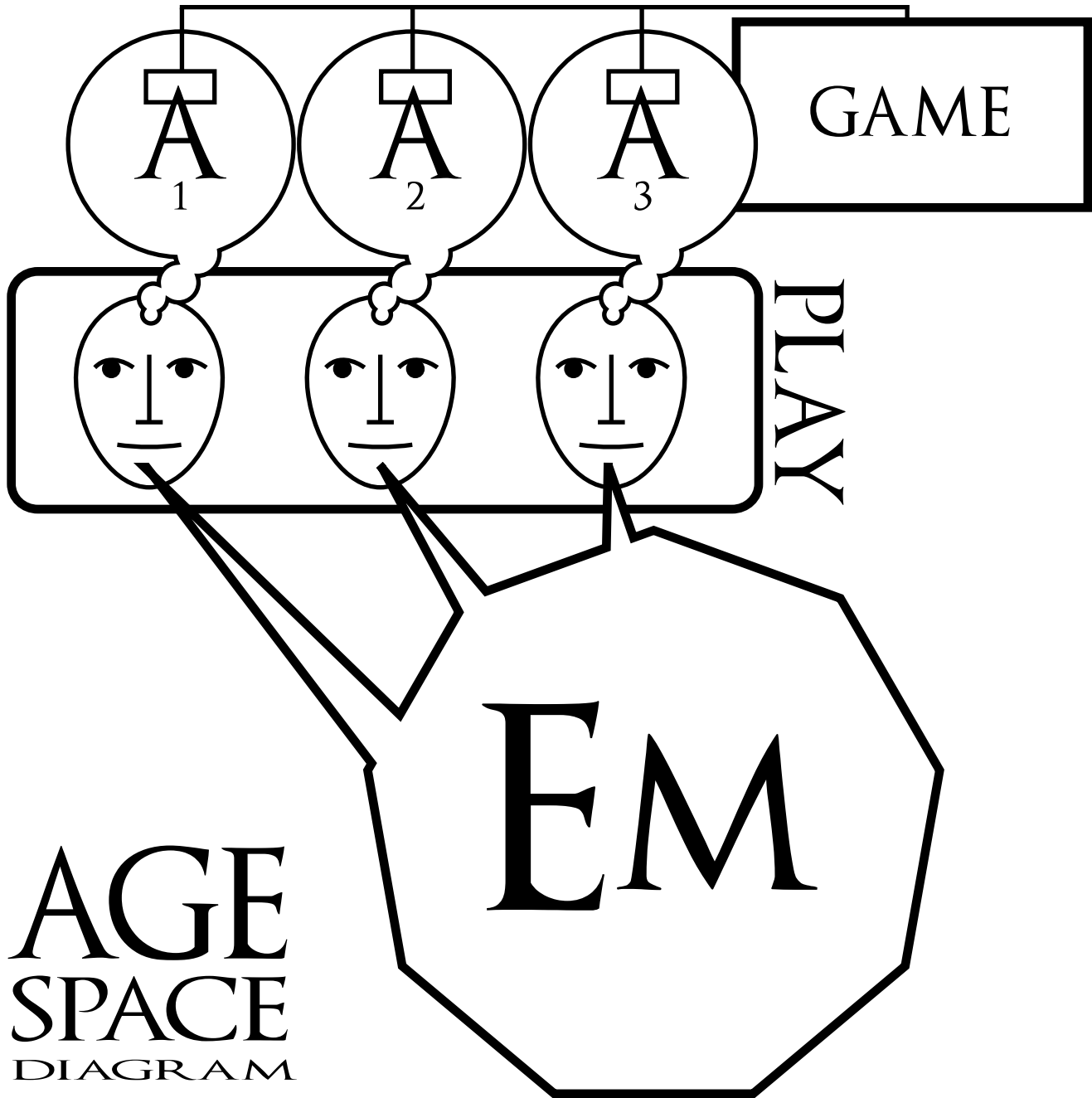
Emspace :: The game’s emspace (emulation space) is defined as the space of *all possible player actions, resources, and processes, irrespective of the ruleset, and defined by the emulative consensus of all players*. The emspace is a psychosocial construct of the players in the game. It represents the sum of the actions possible in the players’ understandings of the rules, in addition to the creative expressions of the individual players. The emspace has one important quality – it is bounded only by the consent of the players in the game. Potentially, any action by any player is perfectly legal within the emspace, so long as all players agree to accept its consequences.

The corollary to the emspace is the aspace (Artistic Space), which is the totality of the creative expressiveness of any *one player*, irrespective of the ruleset, a portion (or possibly the sum of which) is expressed and absorbed into the social whole of the game’s emspace. The aspace is technically unbounded by anything but the limits of the player’s imagination.

Playspace :: Finally, the playspace is the *social space in which the players interact with each other*. The playspace is the medium by which players’ aspaces are transmitted to others, the soil in which the emspace is created, and the arena wherein the players agree to abide by, or by consent alter, the rules of the game. While the playspace is

trivially physical (the table around which the players sit, the court or pitch where they play), without its social aspect, the playspace does not hold sway over the participants and turn them into *players*.

Below is a diagram to help the reader visualize these spaces.



The gamespace is the rectangle to the right of the player icons. Each player holds in their head a version of the ruleset (which may or may not contain a 'complete' version of the ruleset) which is augmented by each player's understanding and interpretation of the rules. These individual gamespaces (a-gamespaces), along with the cultural attitudes, knowledge base, life experiences and nascent creative expressions, comprise the player's individual aspace.

The players are joined together by the playspace, represented by the rounded rectangle around the players, which is the social arena in which the game is played.

As the game is played, the emspace is formed by the expressions of each of the players. These originate in their own aspaces, are negotiated in the playspace, and are socially constructed to form the game's emspace.

The final part of the process (not pictured in the diagram for clarity) is that the emspace is then re-interpreted by each player, who holds an individualized version of the emspace within their aspace. Differentiation between these individualized emspaces is, like the gamespace, negotiated through the playspace - differences in interpretation are expressed and either corrected by the group to conform with their experience of the emspace, or augment the emspace and influence the other players.

In practice, any time that free expression is possible on the part of the players, the gamespace must define a smaller set than the emspace. In a game with no capacity for player expression, and where all players are equally well-versed in the rules, the gamespace and emspace are equal.

Only in cases where the player has only a partial understanding of the rules (when he or she is a novice at it, for example) does a player's a-gamespace define a set of actions less than the gamespace. The aspace in its entirety is, for all intents and purposes, unknowably large and unquantifiable.

Now that we have defined the spaces in which games take place, populated these spaces with resources, we come to the last part of the model, the introduction of *time*.

The AGE Model : Overview

The Two Times

There are two senses of time in the play of games, and therefore two sorts of space-time continuums, or narratives:

Diegesis :: This sense of time is defined within the AGE Model as the *time-space continuum of the game's emspace*, changes to which are projected into an *understood past and future*.

Let me try to explain further. The emspace of a game is the range of all a player's possible actions, and resources with which to perform those actions, as understood by the group as a whole. When a change is made to the group emspace, these changes are applied to the past as if the emspace was always as it is now, and any changes made to the emspace, assuming that they are not removed later, are carried out into the future. Changes to the emspace are not (unless it is the wish of all concerned) a one-time affair.

An example would be the creation of an RPG setting wherein the Axis had managed to win World War II, but in which the players' characters lived in the present day. This change to the historical timeline is projected into the past of the characters - for them, the Axis has always been the winner of WWII. As play progresses, the truth of this change to history as the players know it continues to be true for the characters. This alternate setting forms part of the game's diegesis.

The second form of time in games is much simpler, it is the game's exegesis.

Exegesis :: The exegesis is the *linear sequence of events that take place in the game*, where all the possibilities open to the players are collapsed into a single series of concrete events. A game's exegesis can be compared to the plot of a novel: first A happened, then B, then C, and so forth. The exegesis is what is formed by the *collapse of the emspace* - instead of a continuum of possibility, there is a singular reality for all players.

As an example, let's set a scene where a player (Bob) finds his character (Jack) is cornered on the roof of a burn-

ing building. At this moment in the course of the game, Jack's player surveys the game's emspace and his own aspace. He could have Jack jump to the next roof, or climb down the fire escape. He could call for help on his cell phone, summon his superpowers and fly away, or cast a spell to make it rain and put out the fire. Furthermore, Bob could spend a Plot Point and have a flashback where he professes his regret to his love-interest that he's never seen Paris.

The action that Bob ultimately chooses is based on myriad possibilities presented by the game and its resources, the group's emspace, Bob's own aspace, and the dynamics of the playspace in which he is playing. All of these things taken together form the game's diegesis. When Bob makes his decision, however, all of these possibilities vanish, and all that is left is the event itself - Bob's choice on Jack's behalf, and the necessary mechanics of the game in question to resolve that choice into an event in the game's exegesis. The game then moves on to the next event in the diegesis, which is resolved in turn.

Exegesis is just as vital to the play of a game as the diegesis. In chess, past moves can't be taken back. Character action and player decision in an RPG continues into the present. This, of course, is not always the case - the exegesis can be changed at any time by consent from all the players.

The AGE Model : Discussion

Space, Time, Matter & Force: The expansion of the AGE Model

With the 1.1 revision of the AGE Model, the basic elements of the theory are finally completely laid out. The most fundamental of these are the three spaces, into which motion is permitted through the addition of time. The impetus for this motion are the six forces under which the players of the game are themselves subjected, and which they transfer to the play of the game by manipulation of the resources - the raw matter of the game itself.

In the same way that the fundamental forces of nature combine to create complex phenomena, the elements of the AGE Model are now set to create complex structures. The next iteration of this document will deal with these emergent properties. The structures that I have so far conceptualized are:

The Twelve Conduits (Space + Resources): The spaces of the game - the flow from one space to another, is facilitated by the resources, which are the most visible (or only visible!) portion of the game. Each category of resource can form a conduit between any two spaces - for a total of 12 Conduits.

The Six Narratives (Space + Time): Each of the spaces has its own flow of time - both diegetic and exegetic. These narratives weave together to create the entire tapestry of the game's overall narrative.

The Six Processes (Space + Force): Within each space, the forces there influence play, nudging it closer to one or another of the apices. Through conscious use of the forces, however, the players can alter the shape of the game - and the game can alter the players. These six processes of transformation include all three apices (A, G & E) for each of the game's three spaces.

The 24 Levers (Force + Resources): Each of the forces in the game, through the use of resources, can act as a lever on the equilibrium of the game. The nature of the resource determines the mode in which the force acts. For example, cohesion achieved through social means is different from, and has different uses than, cohesion achieved through symbolic resources.

The 12 Equilibria (Space + Time + Force): Each space can be seen to contain its own equilibrium. These equilibria, if they are not identical to one another, create inter-spatial forces which exert their own pressure on the form of the game.

The AGE Model : References

1. Kim, J. (2003), *The threefold model FAQ*. http://www.darkshire.net/~jhkim/rpg/theory/threefold/faq_v1.html
2. Edwards, R. (2004), *The whole model - this is it*, <http://www.indie-rpgs.com/forum/index.php?t=8655>
3. Mäkelä, E., Koistinen, S., Siukola, M. & Turunen, S. (2005) *The process model of role-playing*, http://temppele.org/rpg/process_model/KP2005-article/Process_Model_of_Roleplaying/Process_Model_of_Roleplaying-many.html