Computer games
Media and Arts

S. Natkin,
natkin@cnam.fr
http://www.enjmin.fr/
http://cedric.cnam.fr/

SONY ONLINE ENTERTAINMENT

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Introduction

- Main aspects of the last century => development of communication networks
- New communication revolution relying on interactive media.
- Which type of sociological relations? Which type of new contents will be induced by interactive networks?

We suggest to consider one of the most mature fields of the interactive media domain: the computer game industry.

A zoology for single player games

Puzzle:

« symetrical position between man and computer in an intellectual challenge »

Strategic: Age of Empire II, Black and White

« A complex decision process »

Action: Tekken, Rez, …Rayman,
« A lot of frantic buttons »

Jia-Ling lowQuality.wmv

Adventure: Silent hill 2, Zelda
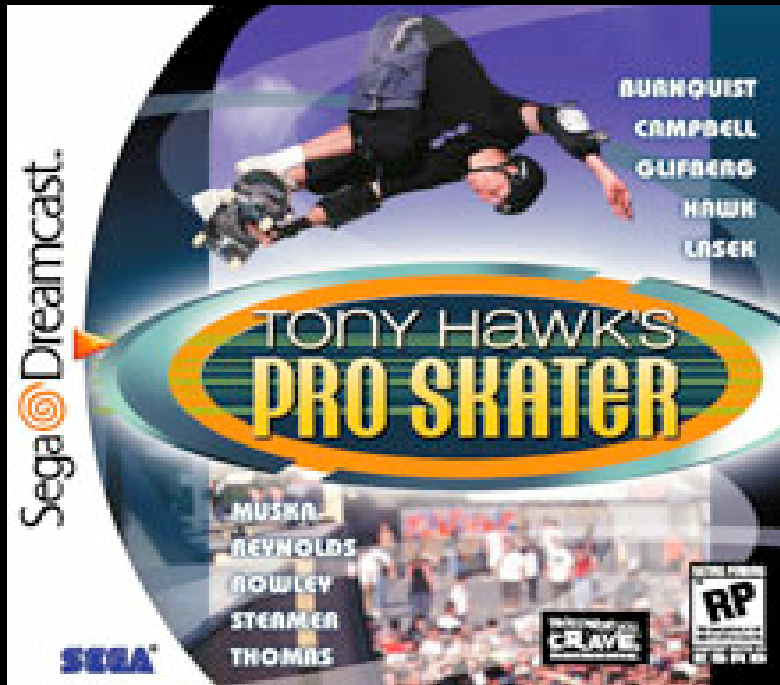
« Driven by the story»

SILENT HILL 2
The Silence is Broken

Simulation/Sport

Actions+ Simulation of a physical systems
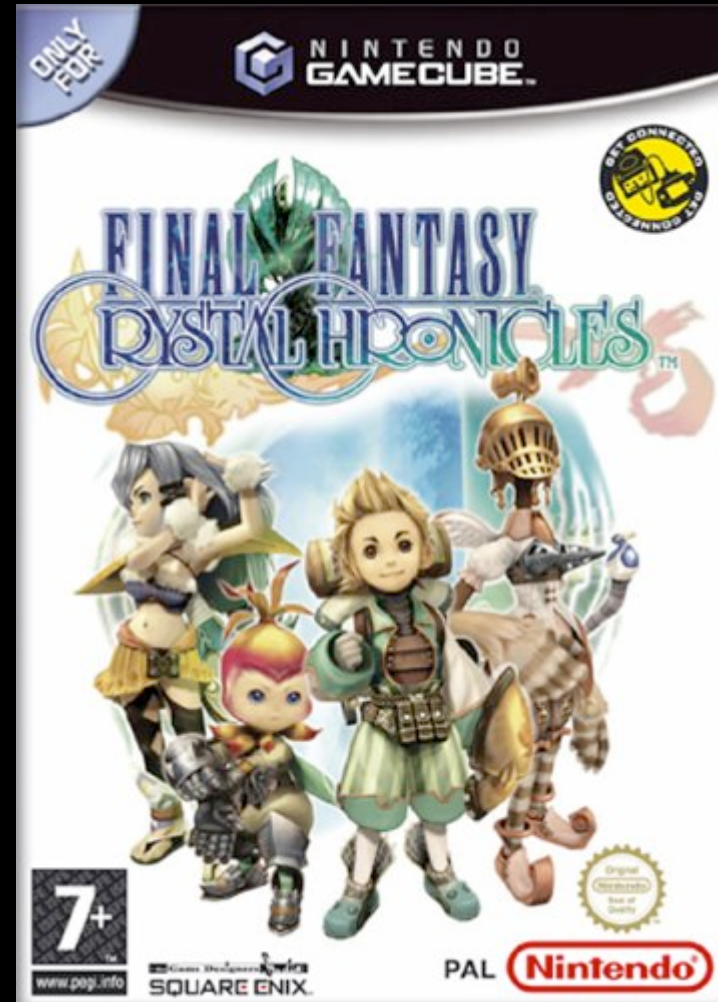Collective sports= sports + strategy

Discovery games: Versailles

« The game equivalent of documentary »
Adventure or strategy based on real facts

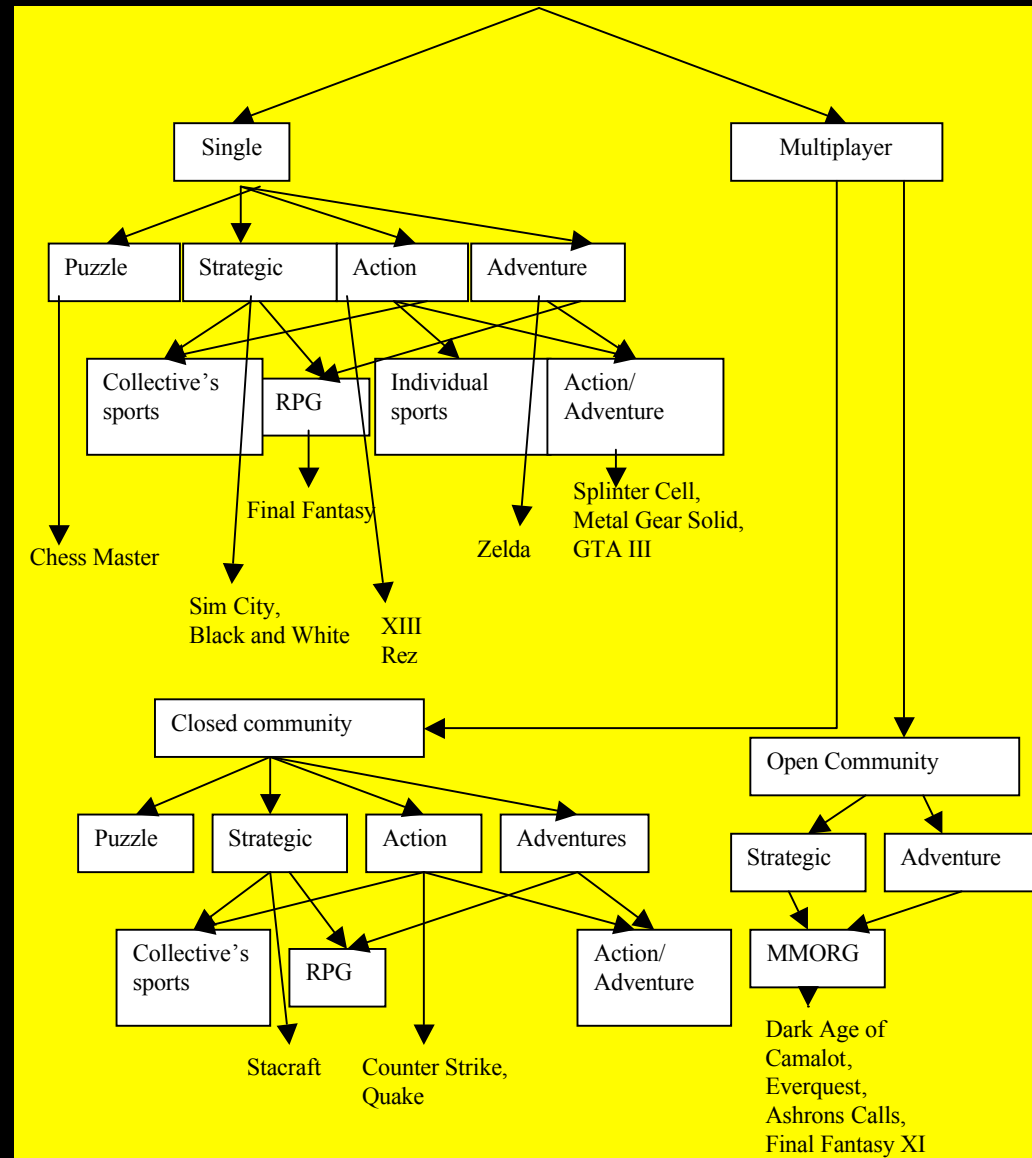# Role Playing Games

Adventure+ Strategy

Game with and without rounds

- One round : Adventure games
- Several rounds: Strategic games, Puzzle
- No rounds: persistent games, tamagoshi…

Multiplayer games

- Cooperative/ Competitive
- Competitive: single or in a team
- Open or closed community
- Notion of rounds

Game Zoology

Writing for games

The player must feel in an open interactive work,
but should be driven to the game solution.

We think that game Industry practices are the source
of a new fundamental approach of interactive narration.

- Immersion techniques,
- Game Design principles,
- Scenario and level design,
- Gameplay.

Classical point of view of the main points of game design

- ν Game Design
- ν Scenario and level Design
- ν Game Play
- ν The learning process
- ν Look and feel

Game Design

Creates the main aspects of the game universe

ν   Context of the game (epoch, style, historical or mythical references)

ν   Global scenario (Topology, global navigation graph, main characters, nature and hierarchy of the levels)

ν   Main features of the game

ν   Principles of the gameplay (modalities, goals, rules, main strategic choices)

ν   Image and sounds charts (look and feel)

ν   Ergonomic principles (Interface, game learning, saving and loading options…)

ν   The classes of objects in the game.

Black and White example

Player is a God of a small world.

Goal is to be recognized and honored by his people.
 The objects of the game are:

The representation of the God (a hand),

the people classified by sex and profession,

the animals,

the houses and monuments,

the materials to built house and monuments.

A good and a bad angel which are an on line help …

Virtual camera allowing several point of views of the same scene (first person, third person)…

Scenario

Comes from the movie world and is related in one hand to the idea of story telling and in the other to a sequence (and time driven) of scenes.

ν   A game can not be only a scenario, as the player must always be the main actor of the scene *(a scenario often drives adventure games and in action or simulation games the scenario is mainly a piece of the context)*

ν   Always a scenario in a game: It may be reduced to the sequence of goals to be reached or a path

Level Design

Defines all the player story as paths in a level

Based on the geometry of the space

ν Positions and actions associated with the objects in this level.

ν The goal implicit or explicit

ν The player is conduct by an implicit scenario, which limit the number of possible effective actions.

ν Keep the sensation of freedom: independent actions can be performed in any order, the player can pursue, in the same space, several goals in parallel

Gameplay

A hierarchy of goals given to the player and classified decisions (strategic or tactic).

- A choice must be interesting (It must have some positive aspects and some non predictable counter parts)
- Player must understand intuitively which decisions are inefficient and he must not have dominant strategies
- A rule must be fair.
- At last the player must win

Learning process

A game is an implicit learning system

Understanding the laws of the game universe is a part of the fun

– Not too simple to keep some mystery.

– Not too complex to allow a discovery by practice (the gameplay and man machine interface)

Look and feel

- Images: Real time 3D (isometric 2D still used for strategic games)
- Sounds: slow evolution from stereo to 3D sounds
- Interfaces: Mouse and paddle/ TV or computer screen/ 2HP
- Failure of immersive and dedicated interfaces
- Possible evolution (consoles linked to home theater)

Analysis of the specificities of game design

- ν Defining an universe previously to any narration
- ν Narration in space
- ν Immersion technics
- ν The gameplay and the learning process

Creation of an universe without a narration

A game is first and foremost an imaginary universe
 Can neither be revealed nor created through the linear statements of the story

The first step of a game design is to define the main aspects of the game universe and all the objects of the game

Objects must be understood as in object oriented specifications: narrative aspects, perceptual features , and action that can be produced by the object or which can modify the object.

This method of construction, is, from a narrative point of view a revolution

The player as author

Designers Story:

The story the game creates.

Players Story:

Every time a player plays a game, he generates a new story unique to
   him.

Narratives in games: Contradiction in terms ?

Separation

Story elements:
- Use of dramatic elements:
  - Characters
  - Background story
  - Conflict / Mission
- Cutscenes show the plot

Game elements:
- Challenge (puzzle or action)
- Exploration of the story
- Manipulation of the story
  by the player ?

Games are about interaction !

Level Design and narrative:
the maze technique

A game scenario (ordering of player possible actions) is based on the geometry of the space and logical implications, not on time
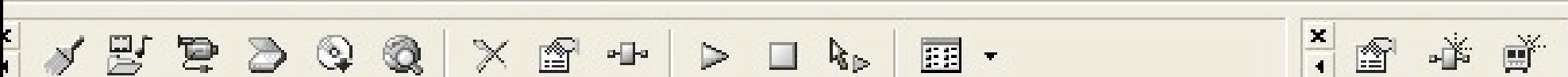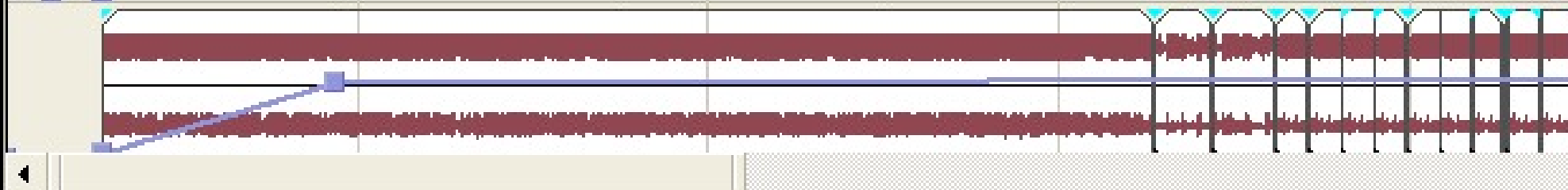
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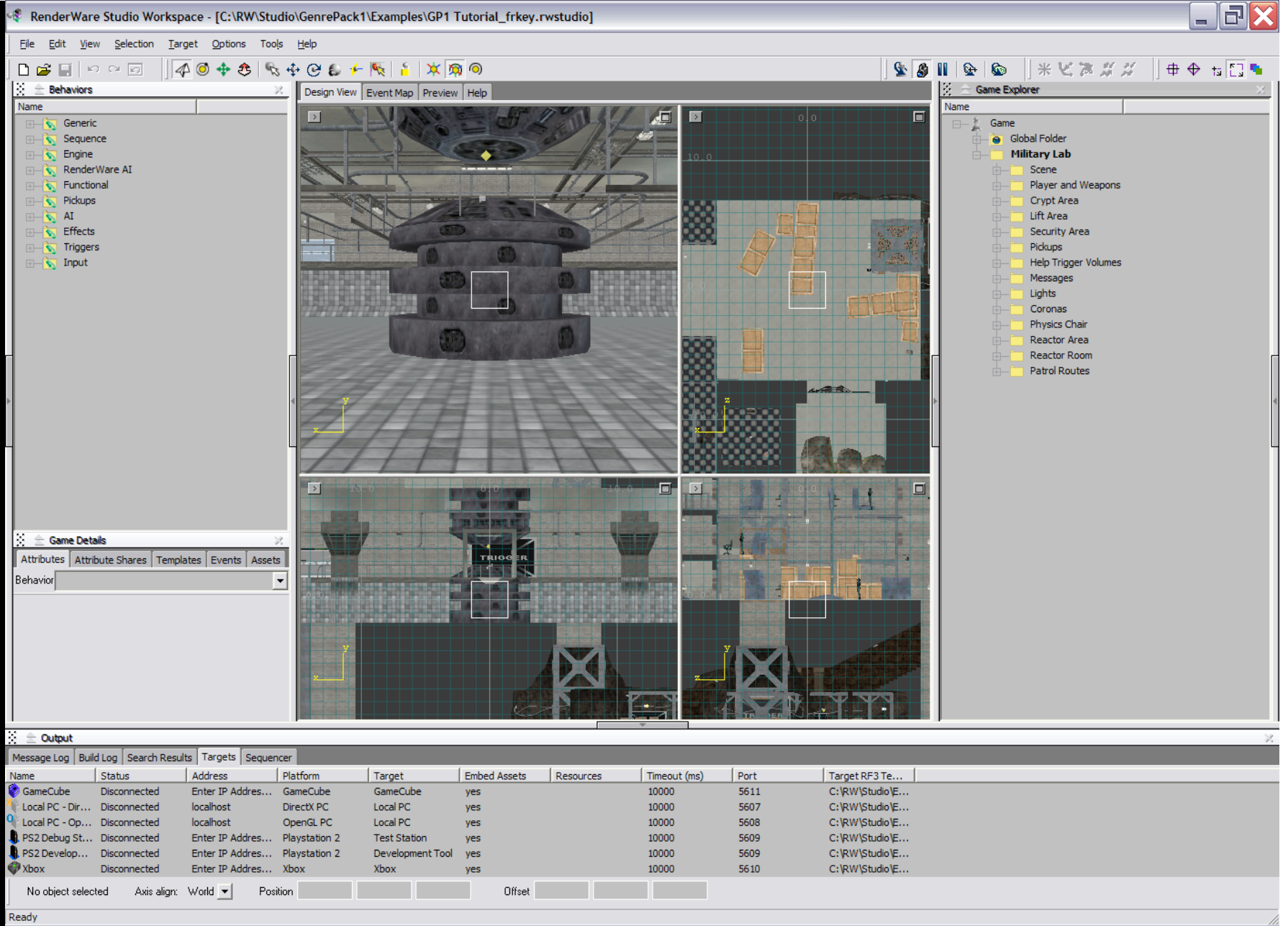ν Helps indications to find the good path (Ariane's thread)

Example Egypt3
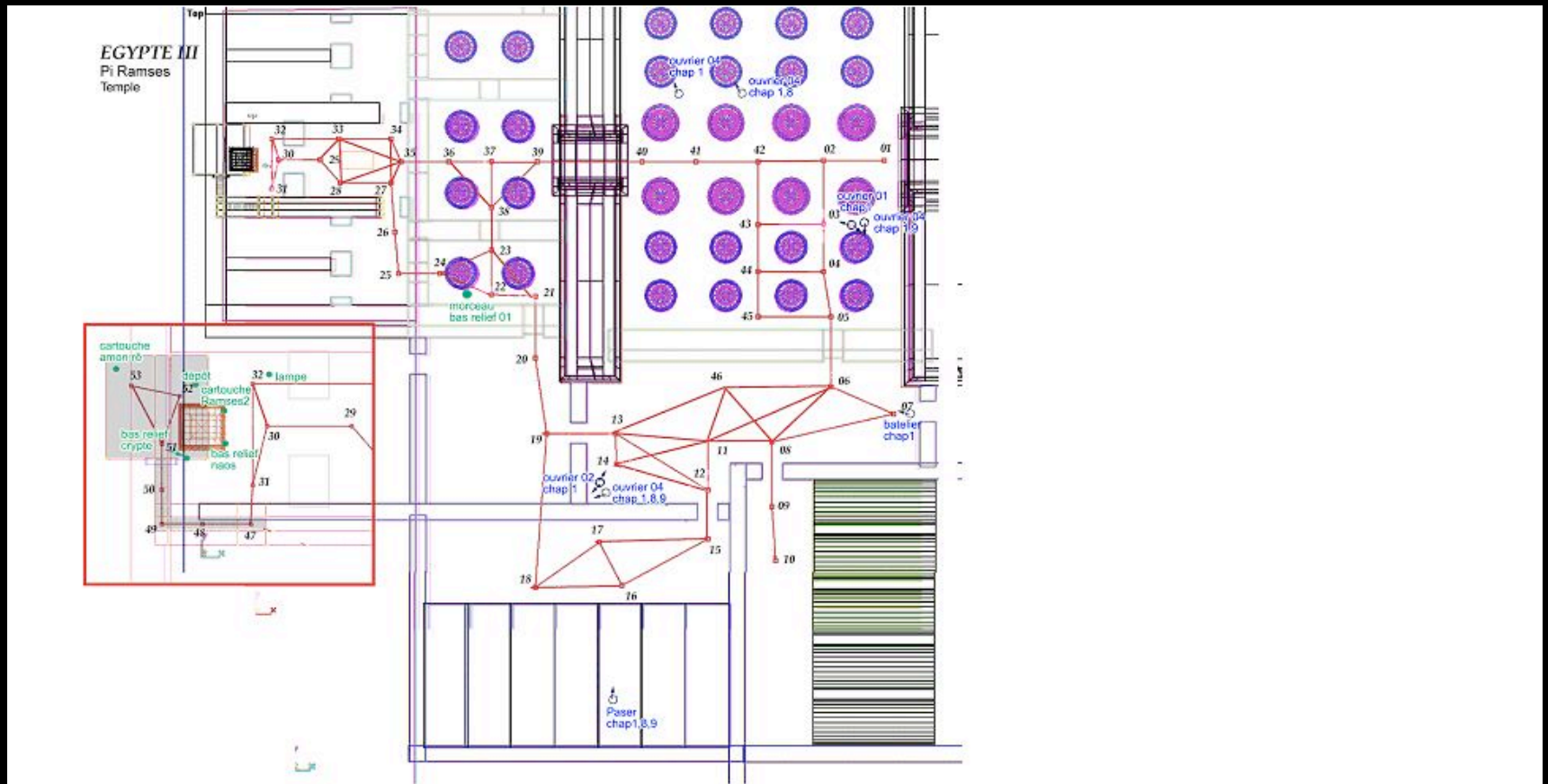
Immersion

Immersion and interactivity trough
- Narrative control (Dramaturgy)
- Look and feel (Sound and images)
- Gameplay techniques
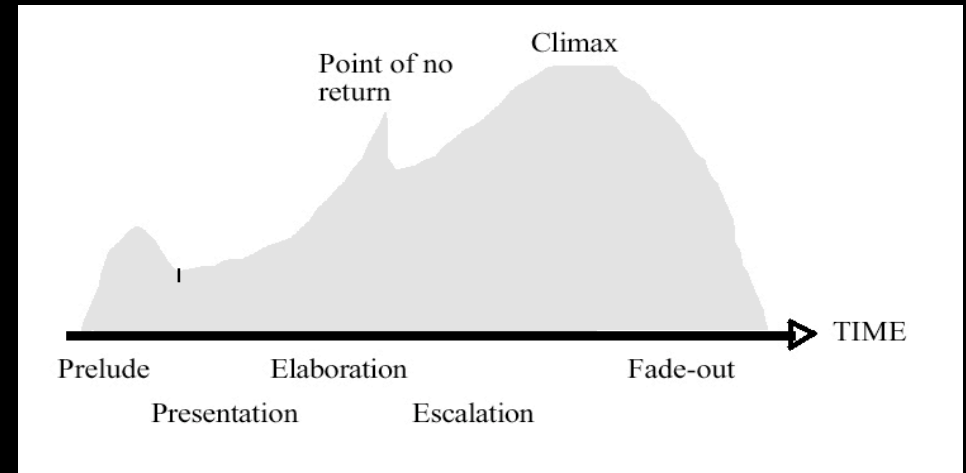
Dramaturgy

Drama (and gameplay) must:

create immersion

Spectator must:

suspend disbelief

Drama (usually) contains:

- Characters
- Conflict
- Perturbation of an equilibrium and transition to another

Problem:

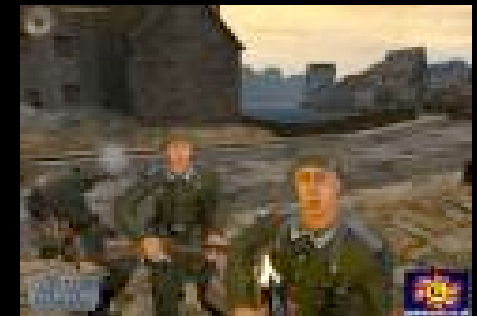Interactivity destroys classical structures and schemes

Cinema Effects in Games

Max Payne (2001):
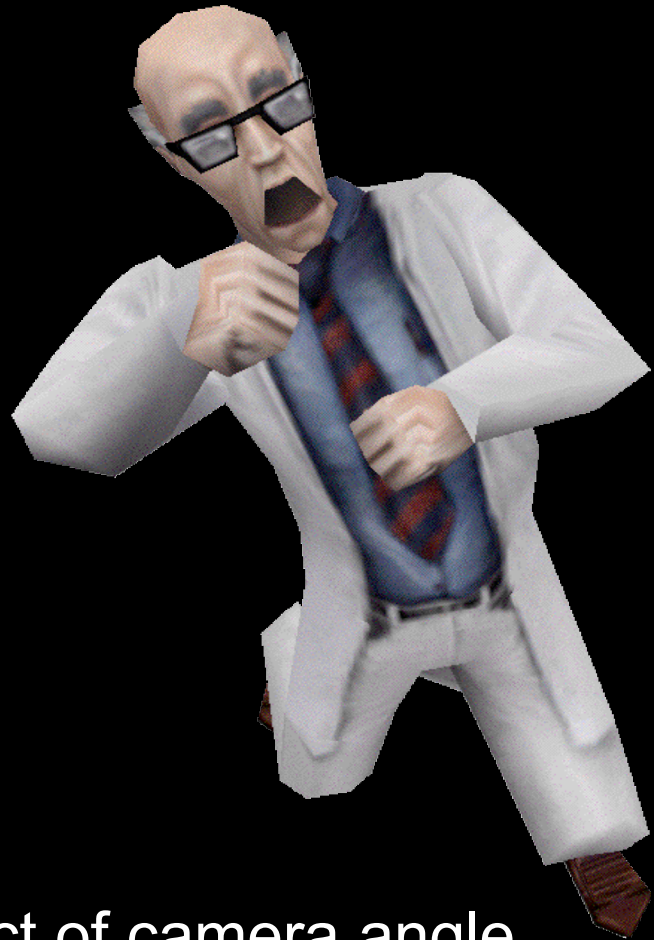Stage yourself in your own shooting scenes

Medal Of Honor (2002):
Dramatic effects:
- Sound
- Music
- Choreography of other characters

Dramaturgy of Camera

Effect of camera angle

Dramaturgy of ....

- Dramaturgy of Time
- Dramaturgy of Space
- Dramaturgy of Light
- Dramaturgy of Music
- Dramaturgy of Audience
- Dramaturgy of Camera
- Dramaturgy of Situation
- Dramaturgy of....

.... create a "book of rules" for dramaturgical principles in computer games!

Games are not in the third territory of film and music

- The third territory of film and music (Claude Bailble)=> Evolution of psychological tensions at the speed of emotional stimulation

- Physical interaction of the player => Evolution of psychological tensions at the speed of real life stimulation

Black and White example

The post-It Immersion Technique

God work for the 20/11/2003

1. Find all the sheep
2. Finish the boat
3. Feed the creature
4. Save the farmer
5. …

Game Play: the novel of a cheater

Games of emergence v.s. games of progression
To classify look at the solution (J. Juul thesis)

Puzzle	Action	Stratégy	Adventure

Sports	RPG	Individual sports	Discovery

GamePlay elements (2)

⇒ Game rules are generally very simple. It seems to be complex because the player does know them. An evolution of rules according to the player skills is interpreted as the universe discovery.

ν There are more and more exceptions to the previous principle.

   – Strategic games .
   – Multi-players games are played as sports.
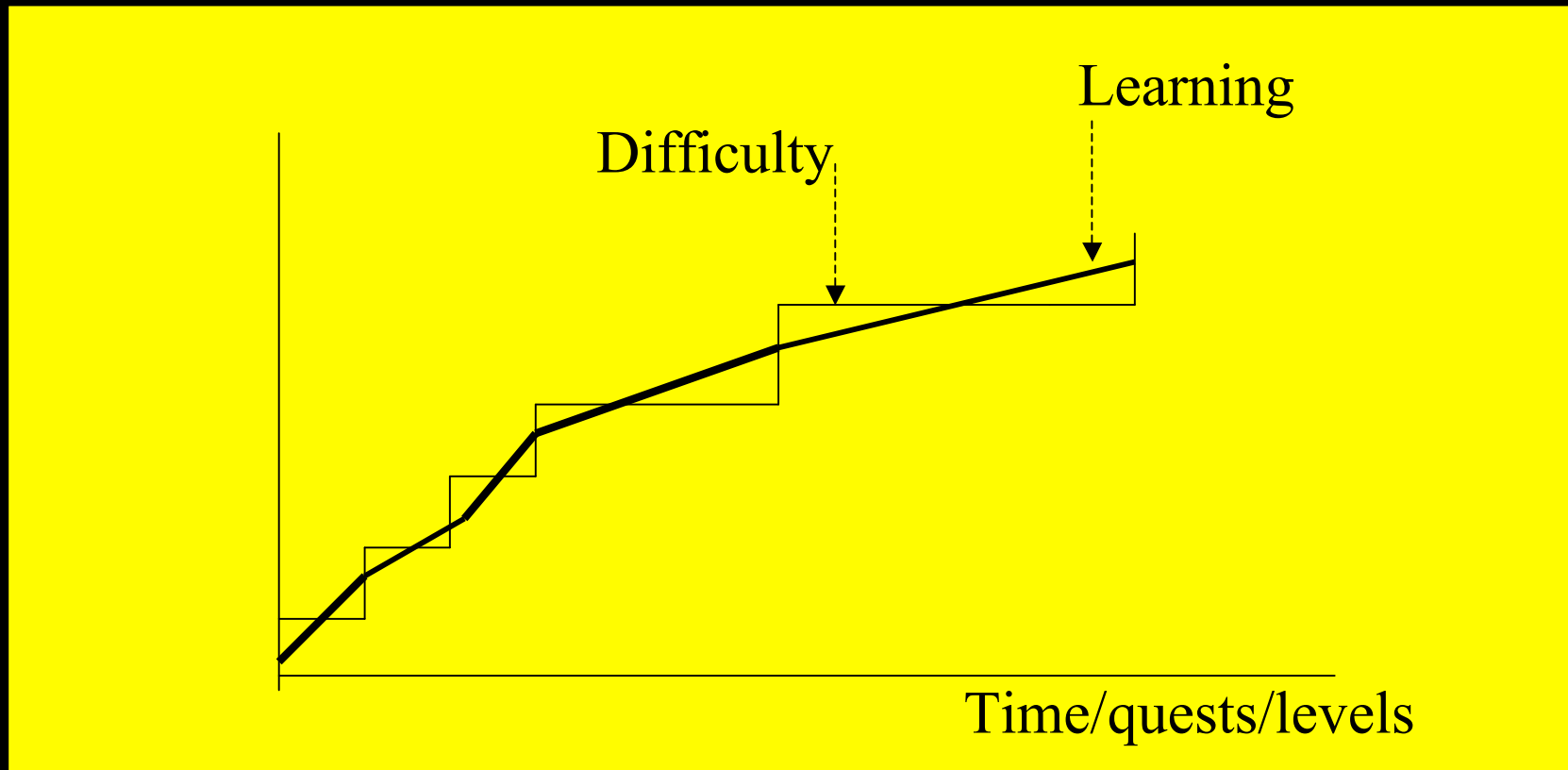   – Persistent on line games

The experiment of Peter Spronk on Never Winter nights

The analysis of Chu-chu rocket gameplay by Jasper Juul

The Difficulty and the Learning curves

Projet Possession

- **Jocelyn DERRIEN**

- **Hugues DUFOUR**

- **Philippe GUITTON**

- **Siukei HUYNH**

- **Laurent KARGUL**

- **Xavier SADOULET**

- **Jonathan SINN**

- **Martin WELTER**

PROJET POSSESSION

Gameplay Overview

You are a spirit that can control any creature

˅ Each creature has its own gameplay
˅ Control and combine them to achieve goals
˅ Use supernatural powers

A living World

- **Each creature has its own life (Home, friends, occupation, ...)**

- **All creatures are part from a society (function, need, services)**

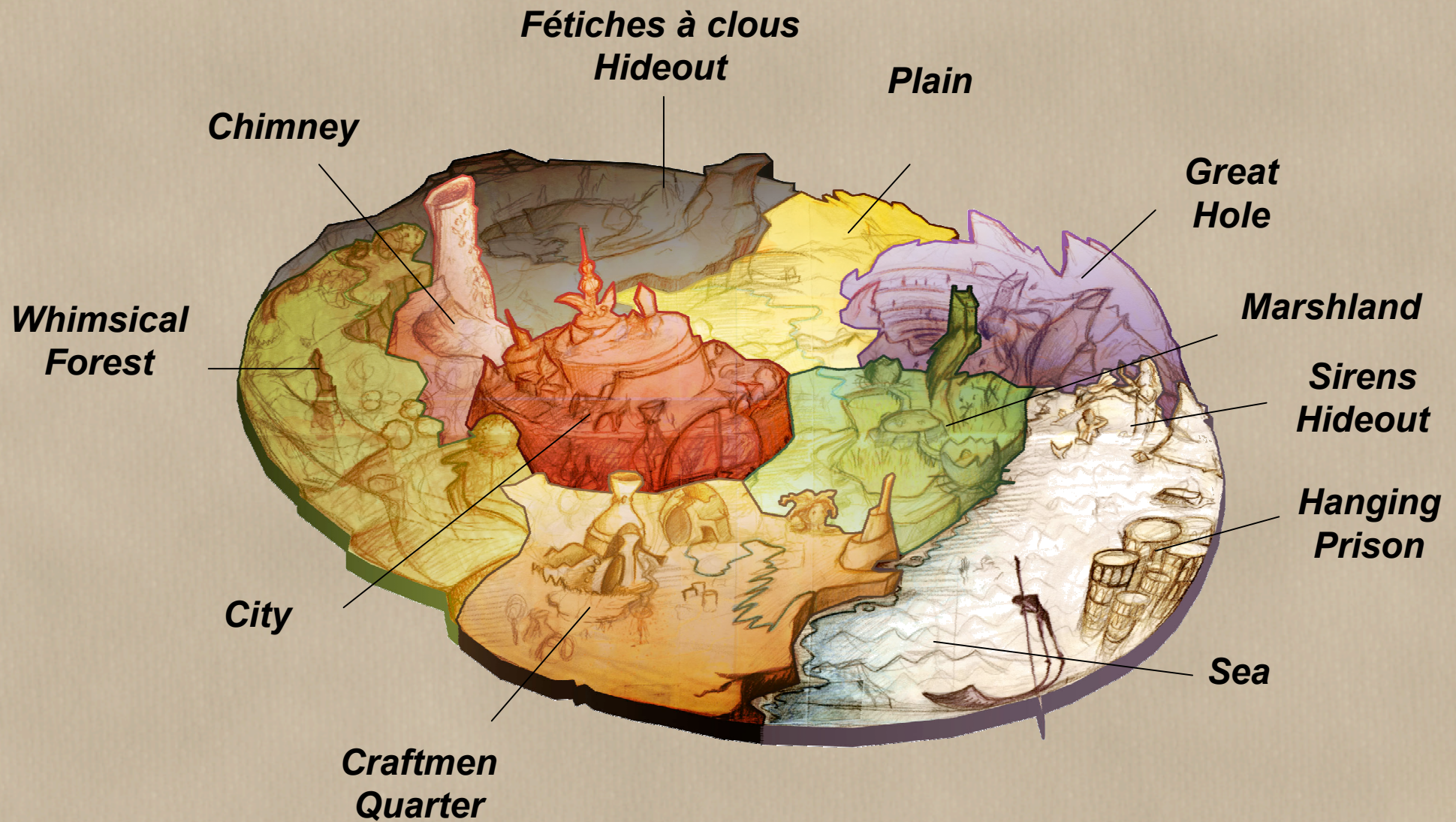- **You can modify a creature's behavior (by embodying it) and the creature will keep it.**

Sample:
If a creature dies, the player will see :
        - the grave-digger getting the corpse
        - a pulley-guard helping him open a pulley
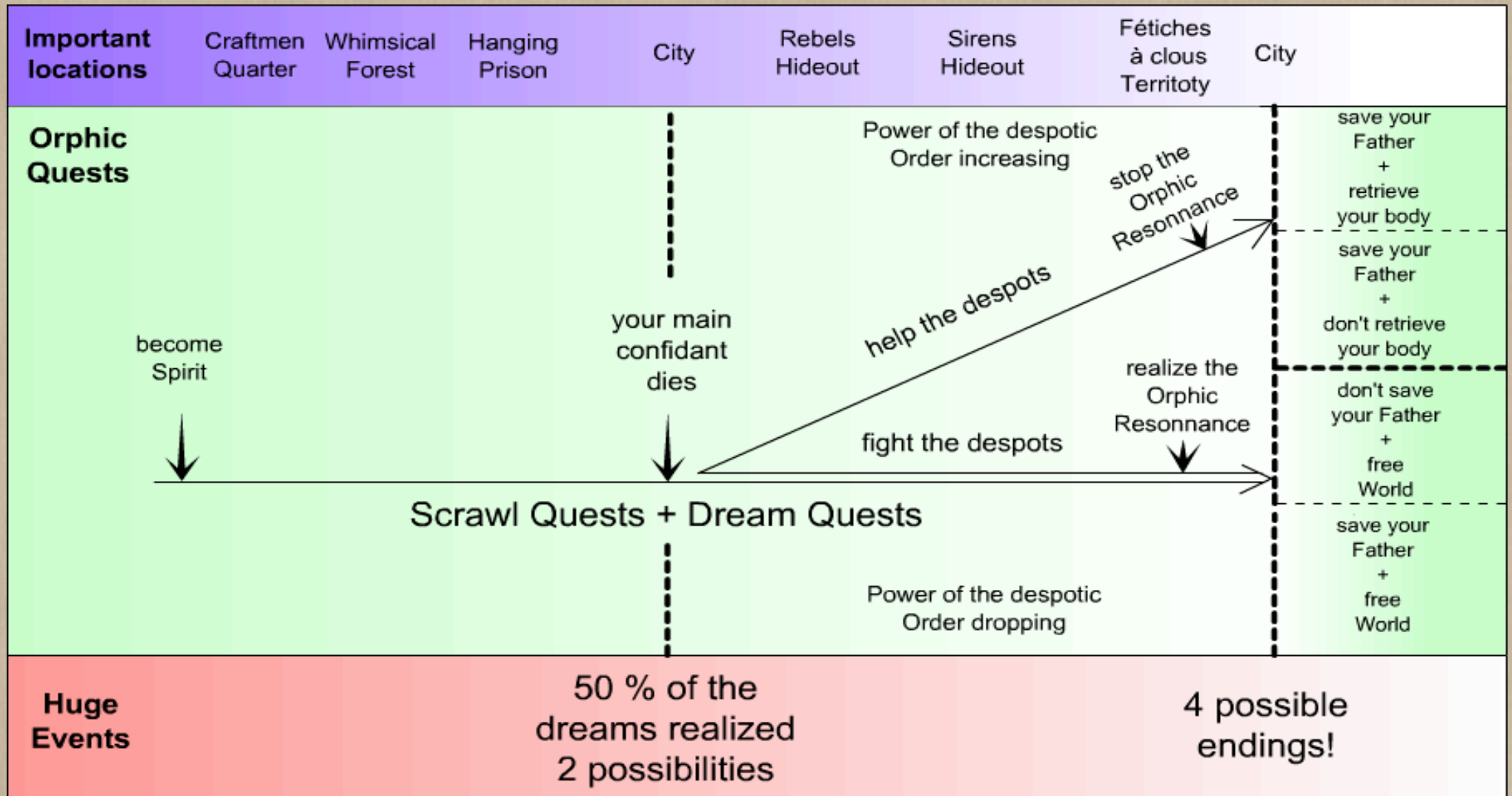   **- the grave-digger putting the corpse in the pulley**

After a some time in the pulley the dead creature will be resurrected and the grave digger will free it.

PROJET POSSESSION

Narratives

Fétiches à clous Hideout

Plain

Chimney

Great Hole

Whimsical Forest

Marshland

Sirens Hideout

Hanging Prison

City

Sea

Craftmen Quarter

PROJET POSSESSION

Narratives

At the Scenario level:

| Important locations | Craftmen Quarter | Whimsical Forest | Hanging Prison | City | Rebels Hideout | Sirens Hideout | Fétiches à clous Territoty | City |

Orphic Quests

Power of the despotic Order increasing

stop the Orphic Resonnance

save your Father + retrieve your body

help the despots

save your Father + don't retrieve your body

become Spirit

your main confidant dies

realize the Orphic Resonnance

don't save your Father + free World

fight the despots

Scrawl Quests + Dream Quests

save your Father + free World

Power of the despotic Order dropping

Huge Events

50 % of the dreams realized
2 possibilities

4 possible endings!

This seems nice ....

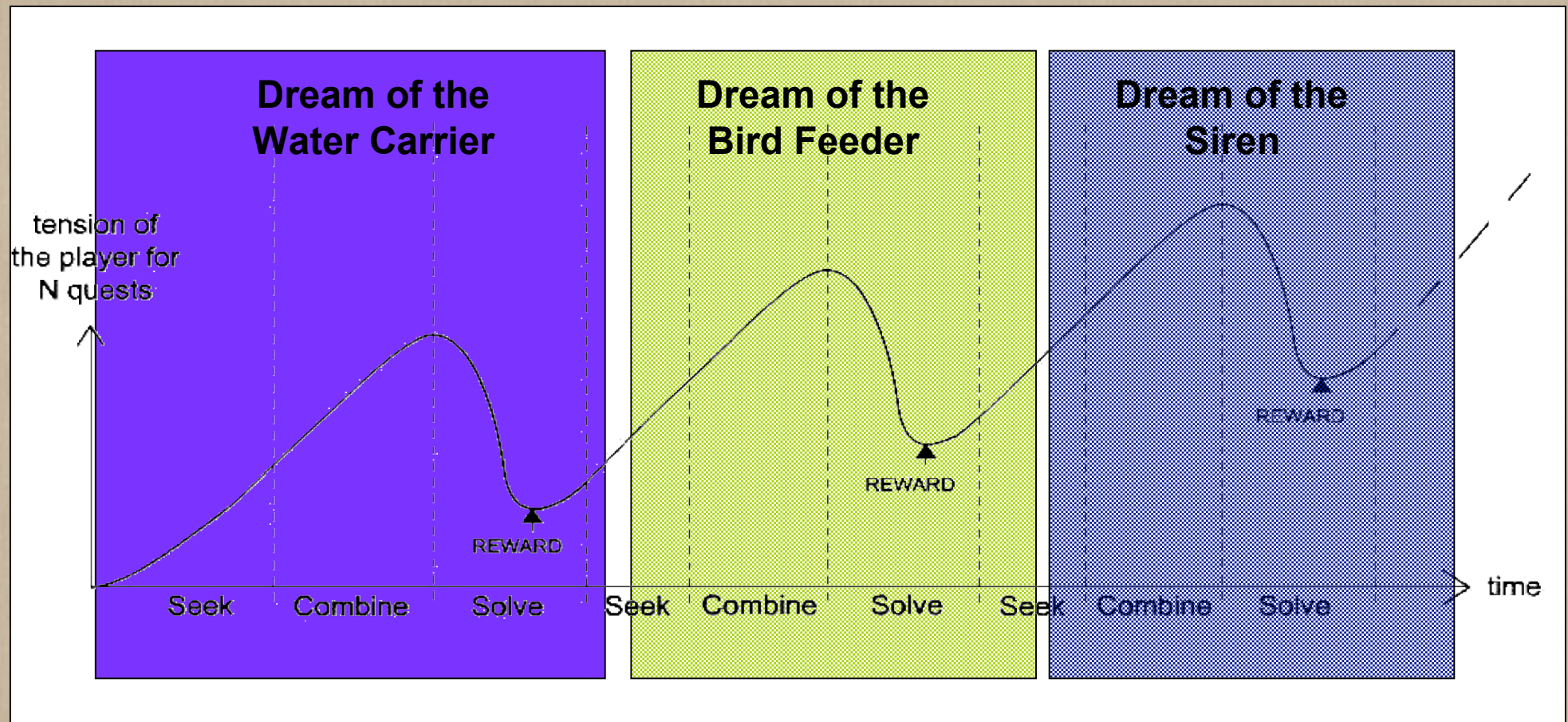So what does the player do here?

PROJET POSSESSION

Progression

Learning curve

At the beginning the player cannot control all creatures (yet)

Always learn a new gameplay (walk, fly, swim, activate, fight, ...)

Interest of

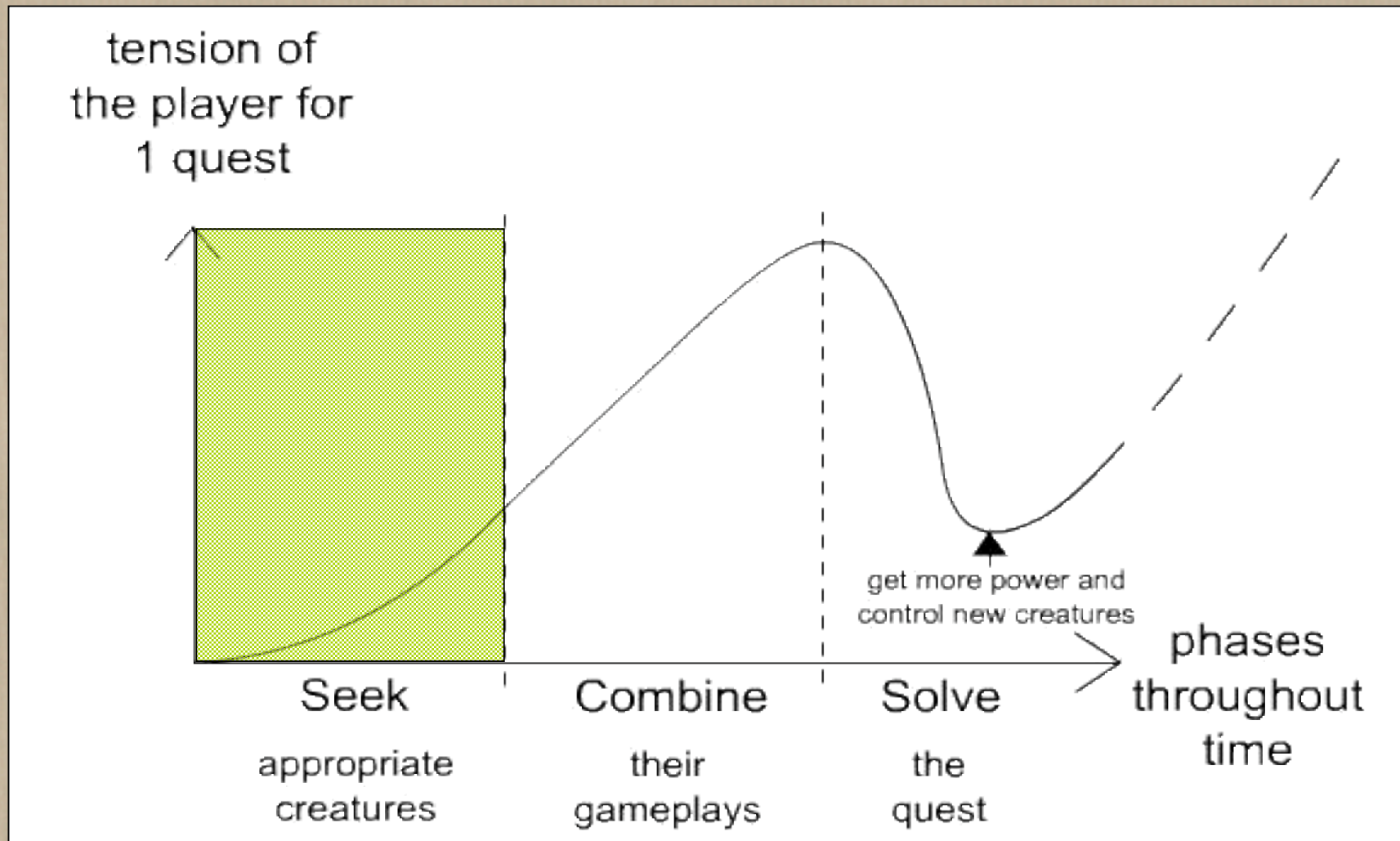*The player in*

1 creature

Observe   **Experiment**   **Use**

Phases Throughout time

PROJET
POSSESSION
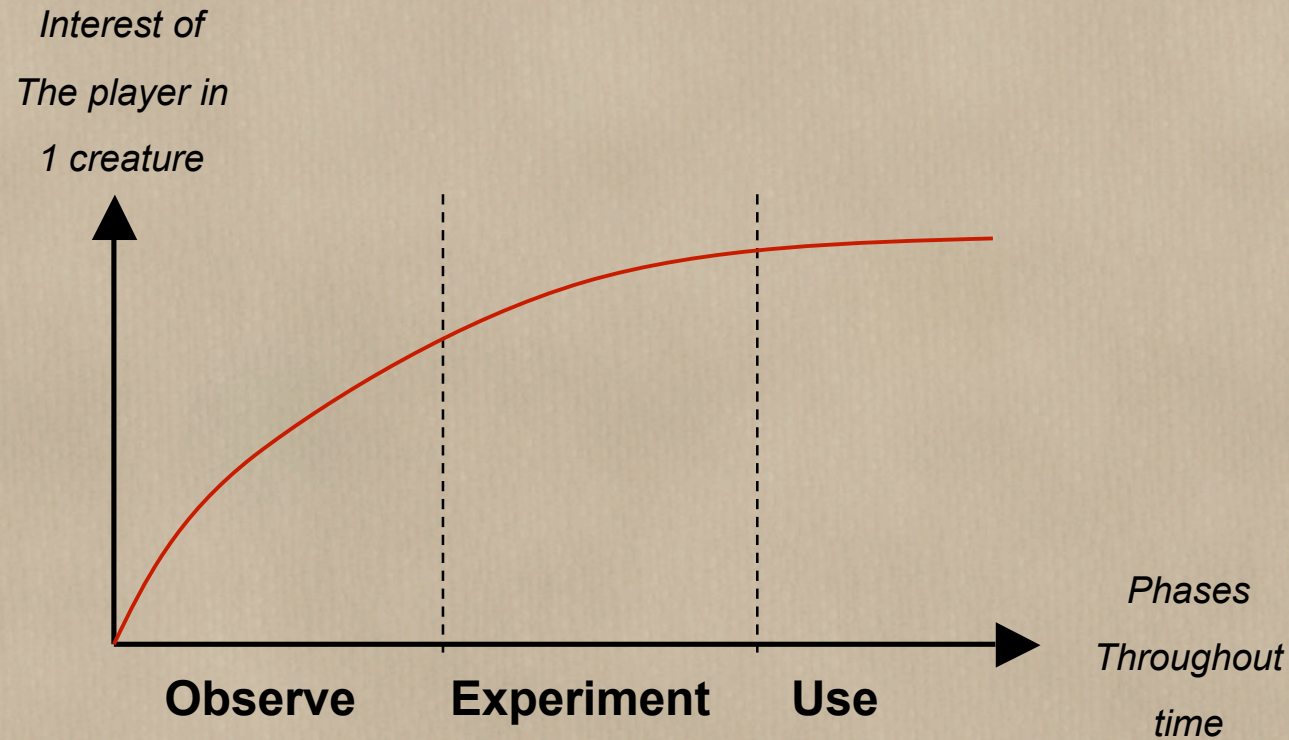
Tension curve

At the Quest level:

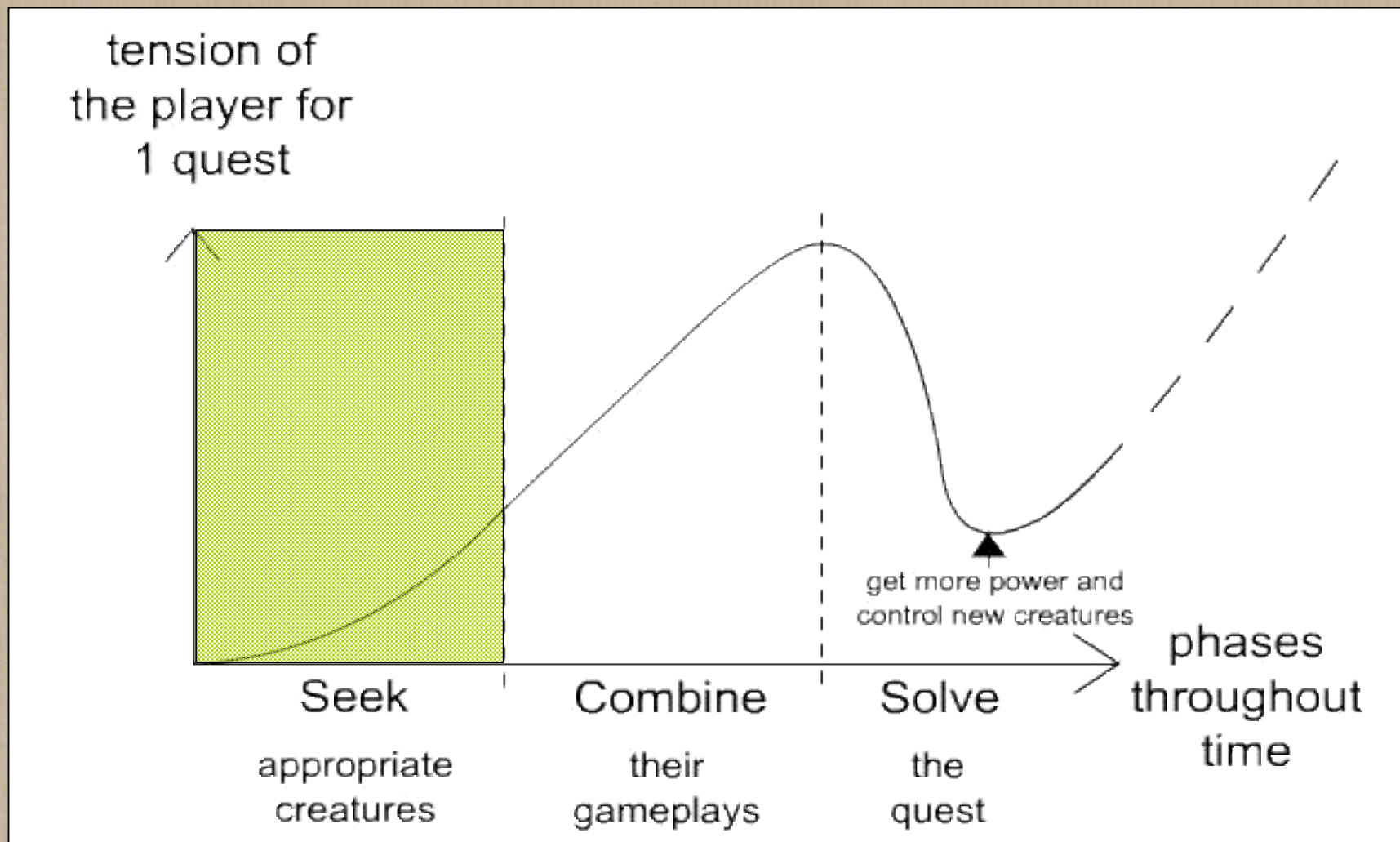**Quest Sample: Dream of the Bird Feeder**

the Bird Feeder loves a Tête à Jambes girl, Ophelia

the Dream Seller produces love powder to put on plants
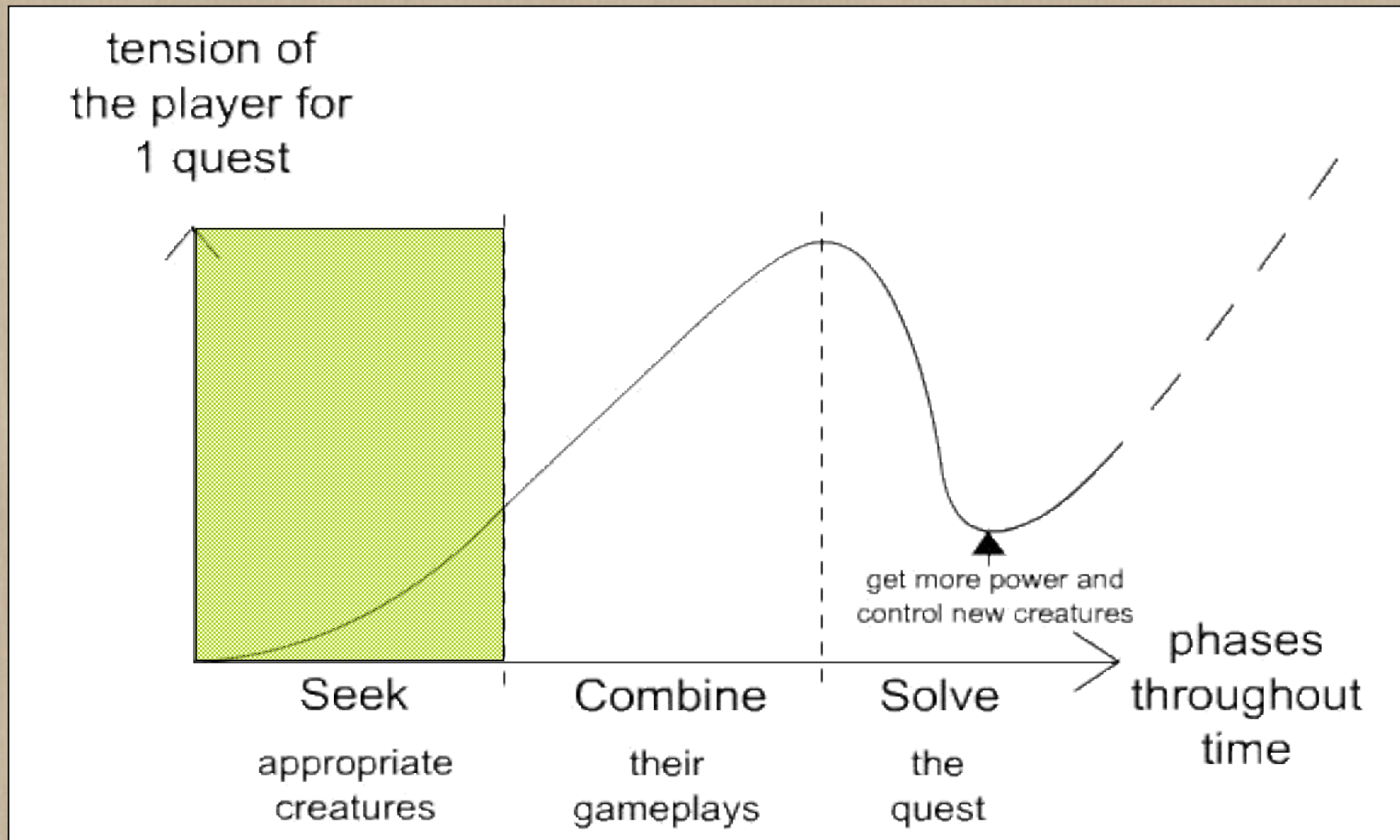so find the Dream Seller, the Bird Feeder, and Ophelia

tension of
the player for
1 quest

get more power and
control new creatures

Seek
appropriate
creatures

Combine
their
gameplays

Solve
the
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phases
throughout
time

PROJET
POSSESSION

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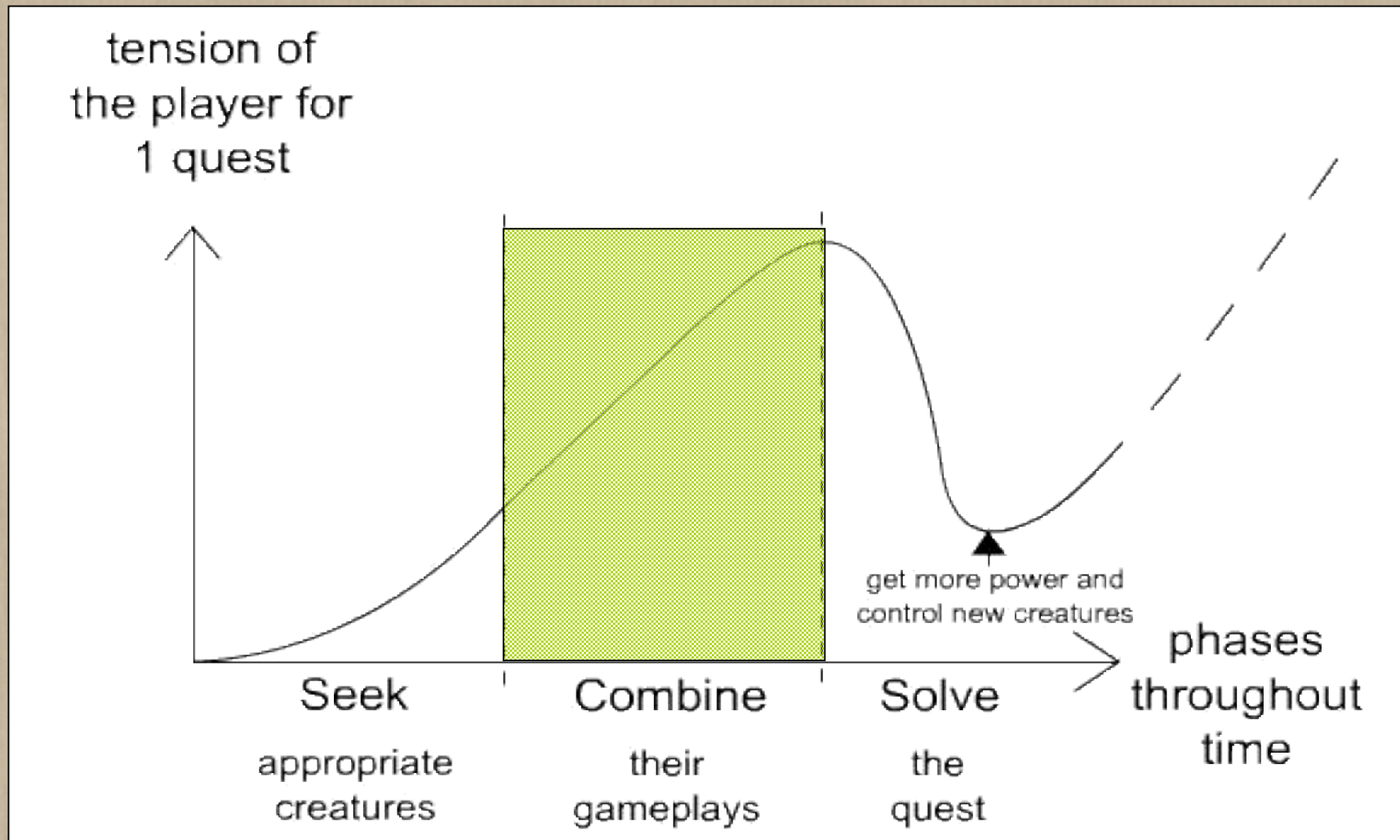so find the Dream Seller, the Bird Feeder, and Ophelia

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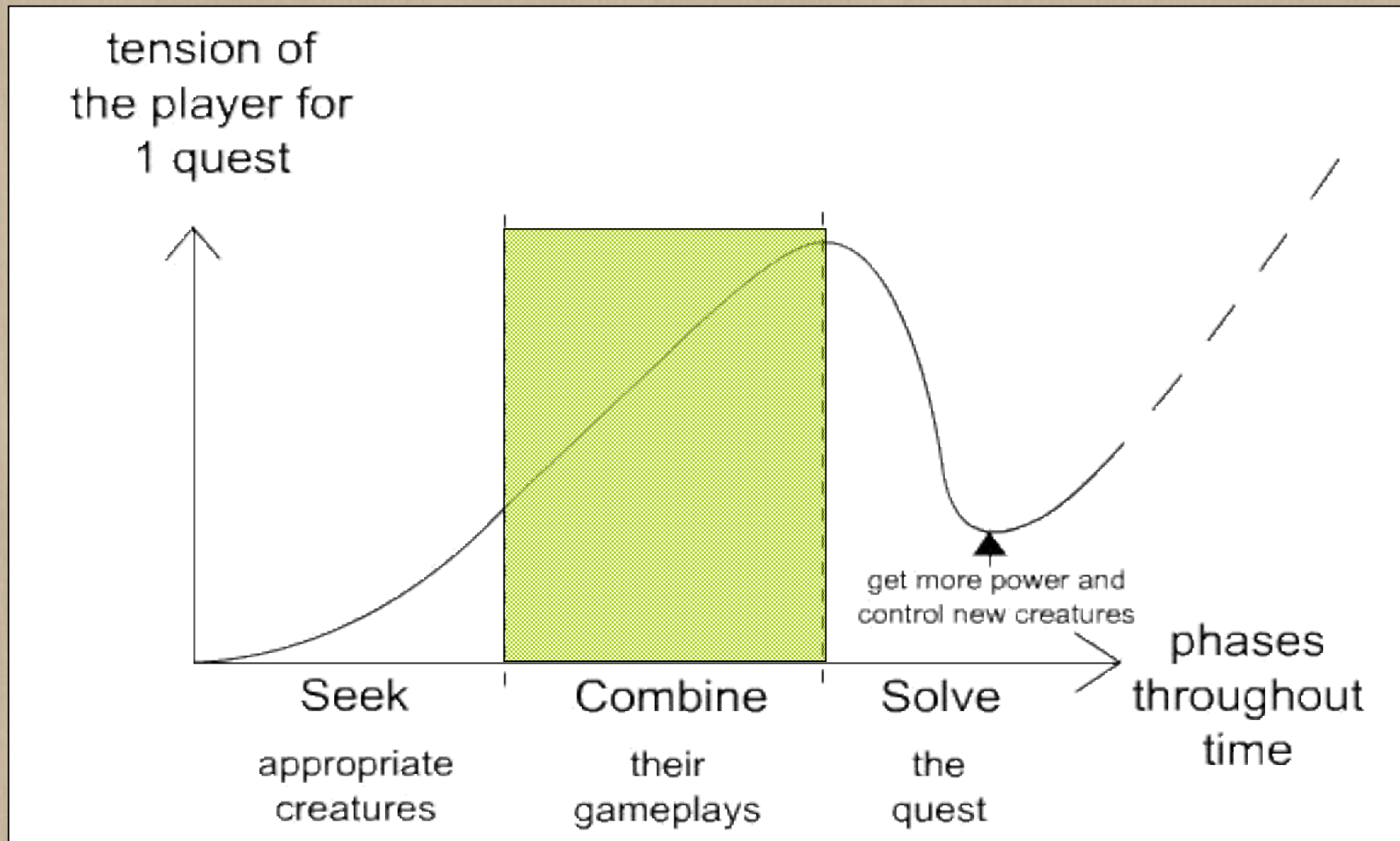**so find the Dream Seller, the Bird Feeder, and Ophelia**

Quest Sample: Dream of the Bird
Feeder

embody the Dream Seller and put love powder on a plant

embody the Bird Feeder and eat the modified plant
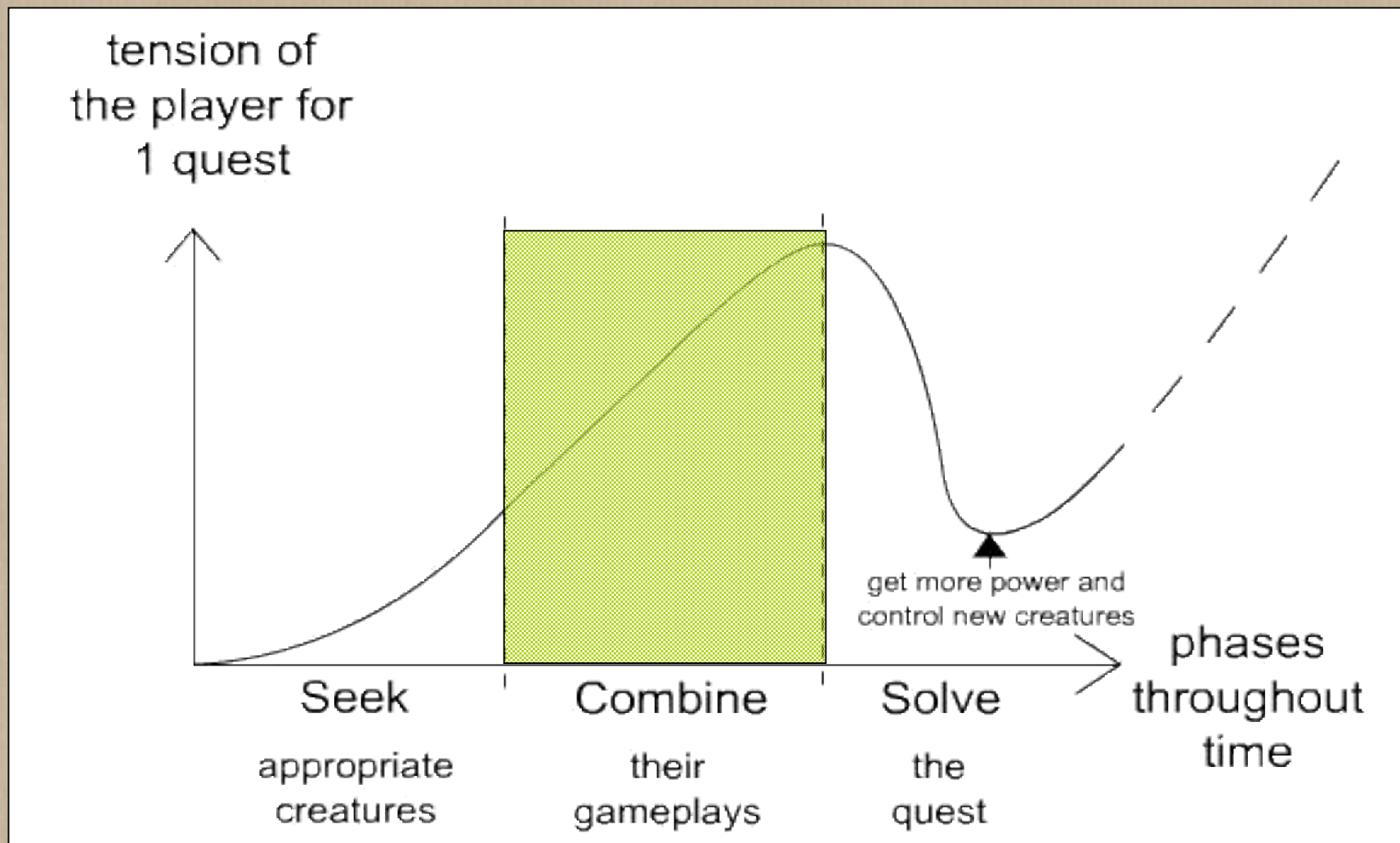
go close to Ophelia and make the Bird Feeder sing

tension of
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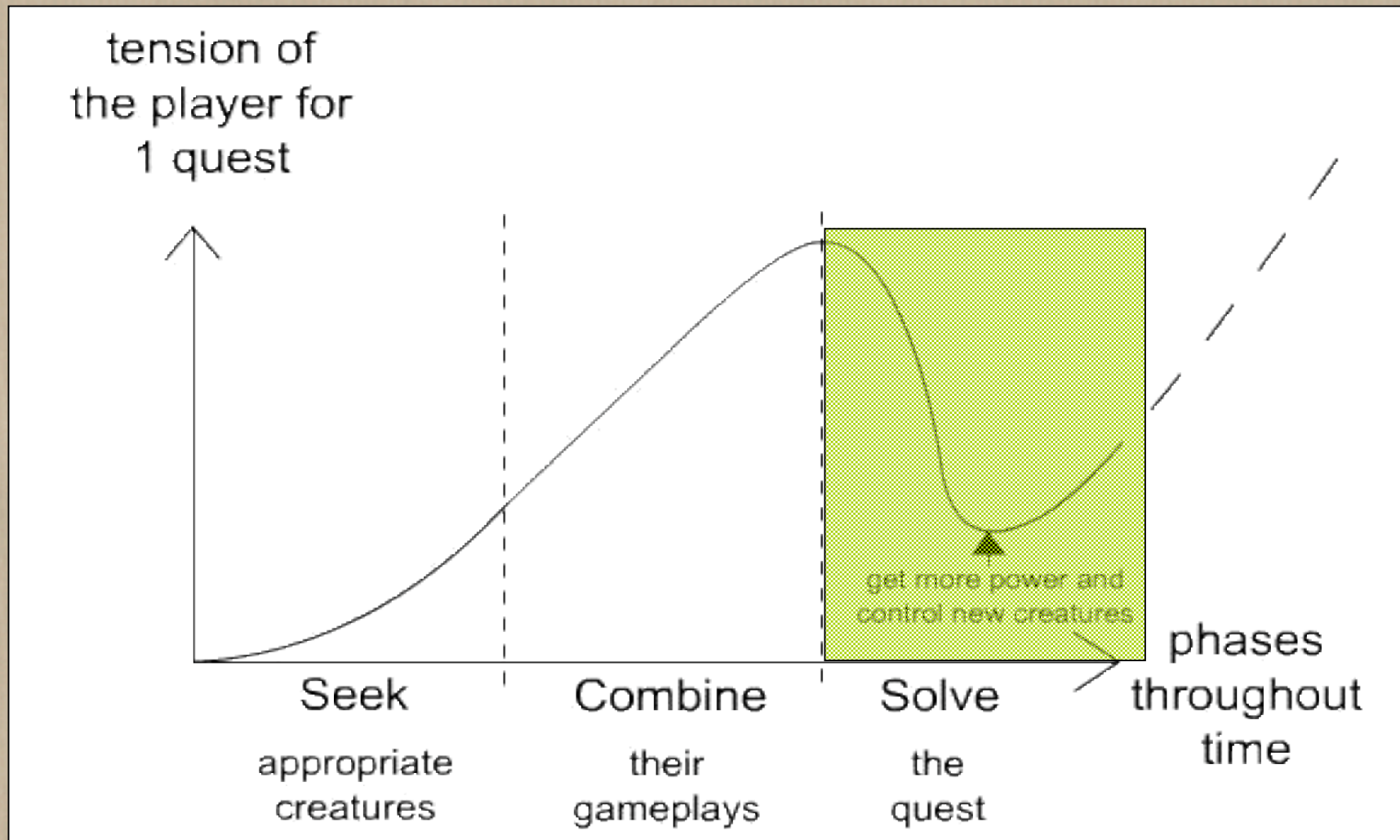**Quest Sample: Dream of the Bird Feeder**

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Quest Sample: Dream of the Bird
Feeder

Ophelia gives a kiss to the Bird Feeder

Quest Finished !
Rewards

Quest Sample: Dream of the Bird Feeder

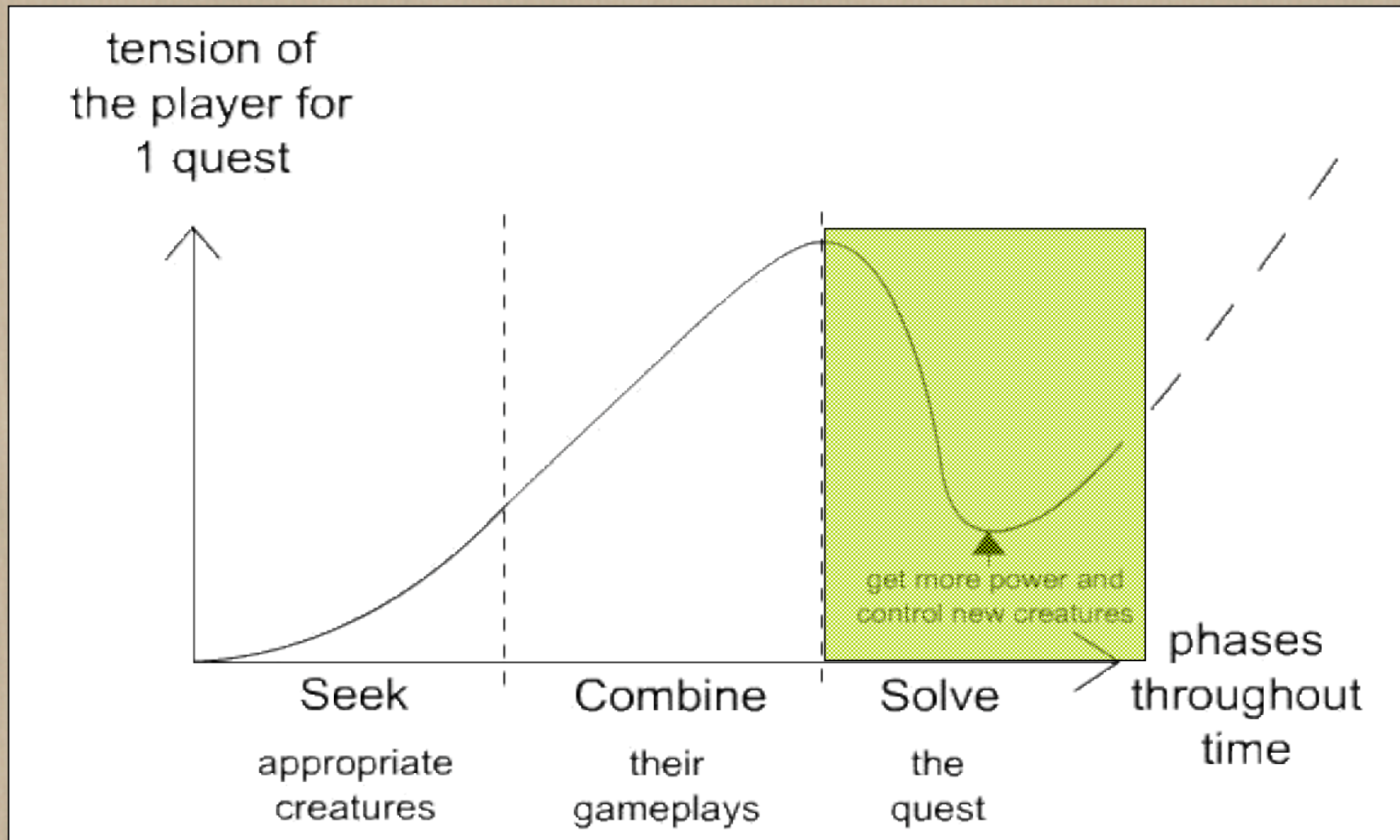Ophelia gives a kiss to the Bird Feeder

Quest Finished!

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Quest Sample: Dream of the Bird Feeder

Ophelia gives a kiss to the Bird Feeder
Quest Finished !

Rewards

PROJET POSSESSION
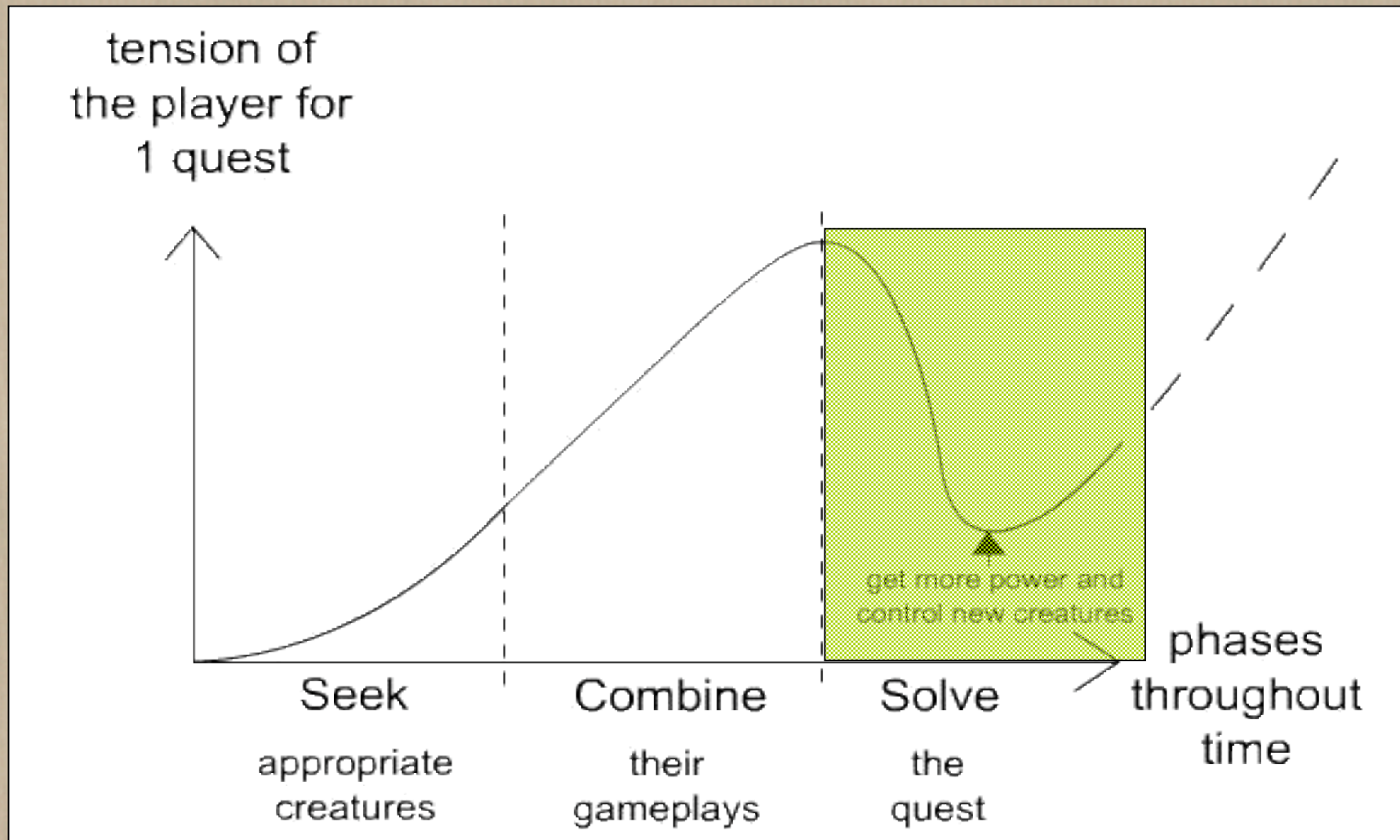
Rewards

v each time you fullfill a quest:

- use your supernatural powers more frequently
- embody new creatures

v gain new supernatural powers

v enhance them by exploring the World

Possession In game

Playing with social relations persistent worlds and ubiquitous games

Massively Multi players On line Games (MMOG)

- A MMOG is a huge shared persistent world and a shared virtual society. It include a trade system
- The lifetime of the world, and the lifetime of the game of a player are not limited. Players get in and out of the game when he wants
- The feeling of freedom in social relationships and the ability to develop social skills are the main interest of the players. Scenario, goals, quest and levels, are anecdotal aspects of the game.
- A MMOG is in constant evolution (Universe, social rules, Gameplay, IA…).

Lineage, WW & Second life

[Lineage](#)

[WWINGAME](#)

The Lands of Aden
© 2003 NCsoft Corp.

Sociology of Avatars

Creation of an avatar

ν   A video game is a formal proposition in conflict with the player 's world representation which stimulates his fantasy

ν   Fantasy relates the virtual world and the psycho-perception of the player

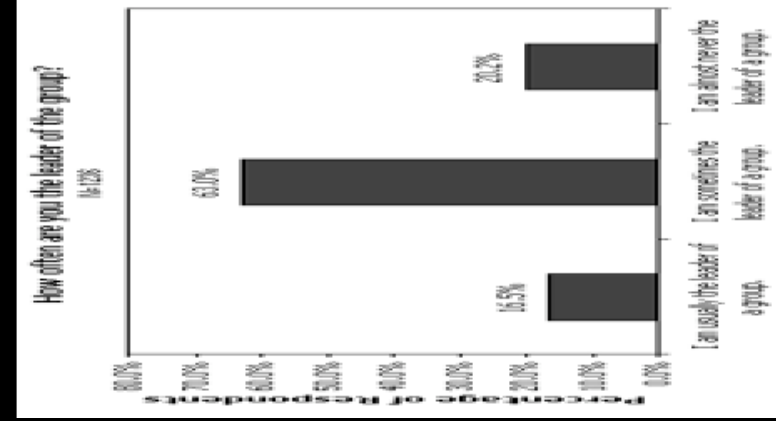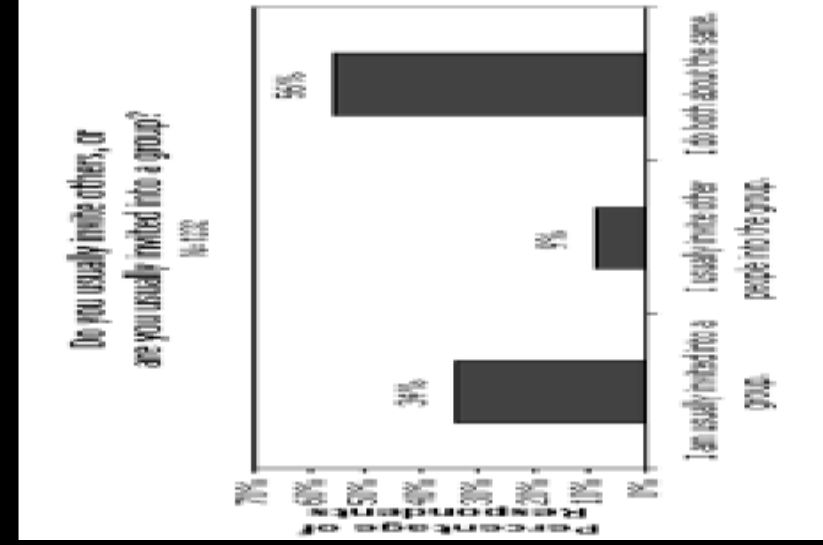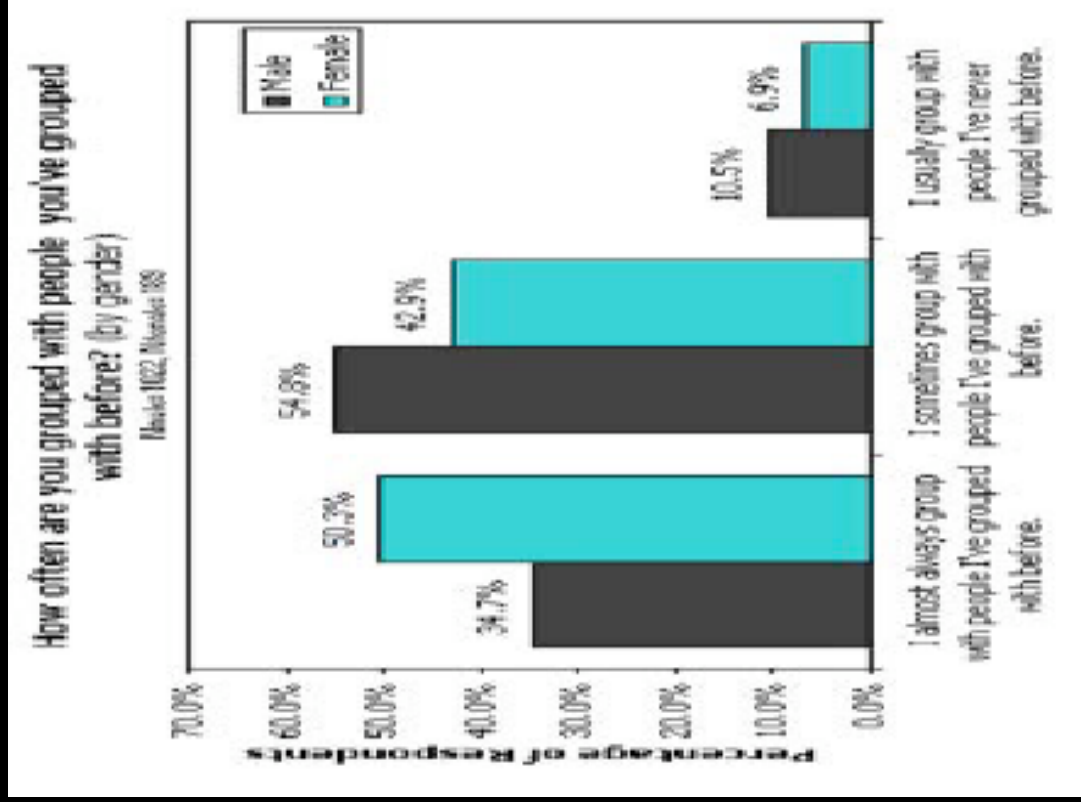ν   This dynamic identification to the avatar allows the player to cope with ideal subjective values

Through the ability to choose things he can not choose in the real world

ν   Sex

ν   Society

ν   Ethic

ν   Language, codes

Sociology of MMORG

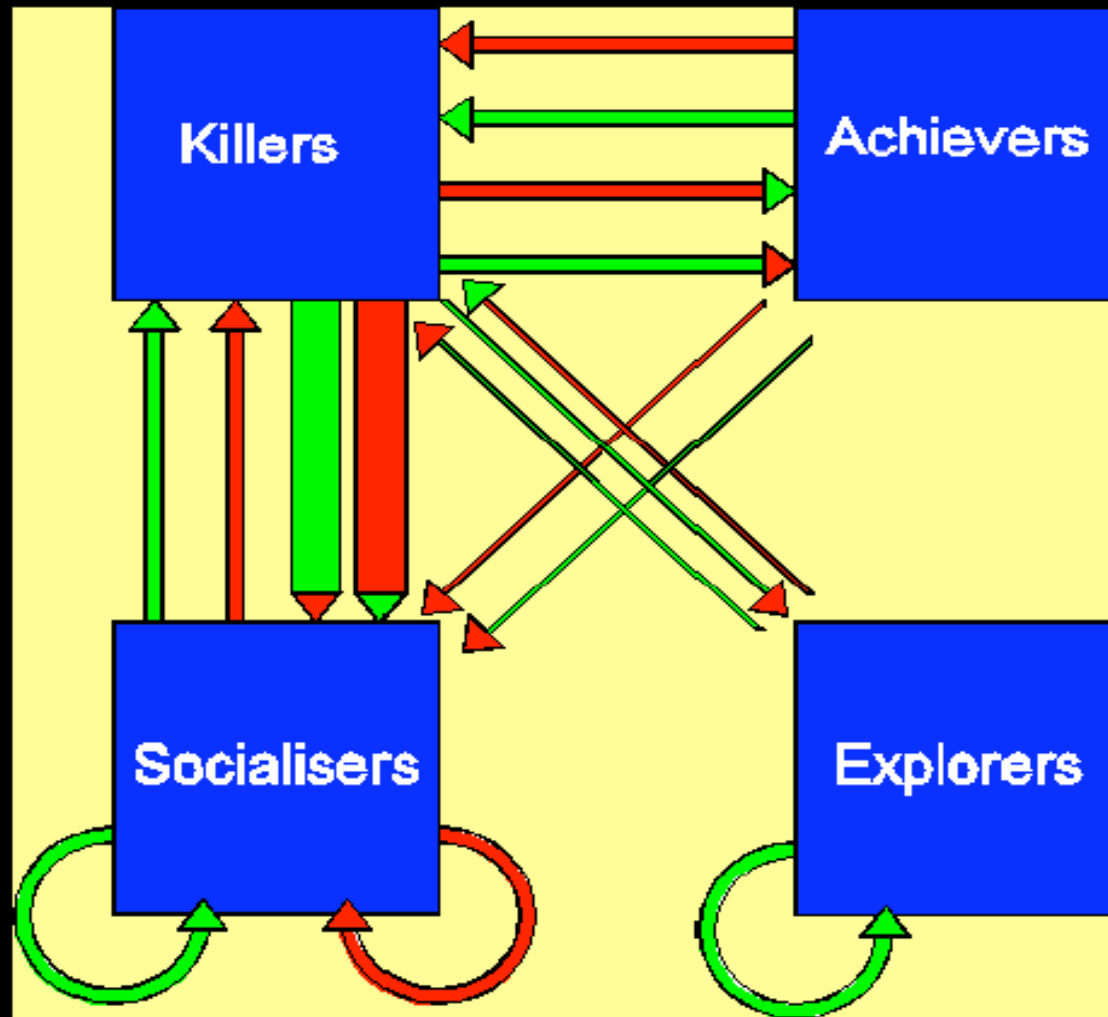- apprenticeship: greenhorn and experts
- Guilds:
  - Homogeneous levels
  - Mixes of skills
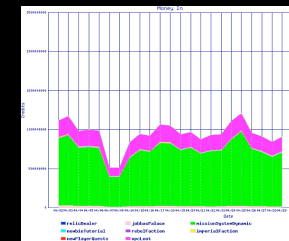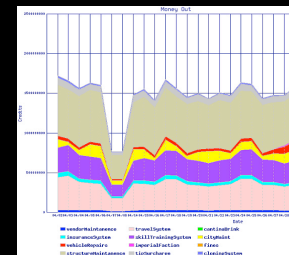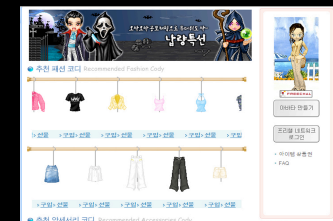- Socialization in and out of the game

Study (Daedus)

Sociology of MMORG (3)
Bartle's classification

A brave new interactive world

- Creating the user contents

- Selling virtual assets

- Real and Virtual economy

- Advertising in the virtual world

- Hacking

User contents

- v Machinima : French Democraty
- v MODS : Addiction

Selling goods and services for avatars

Real and virtual economy
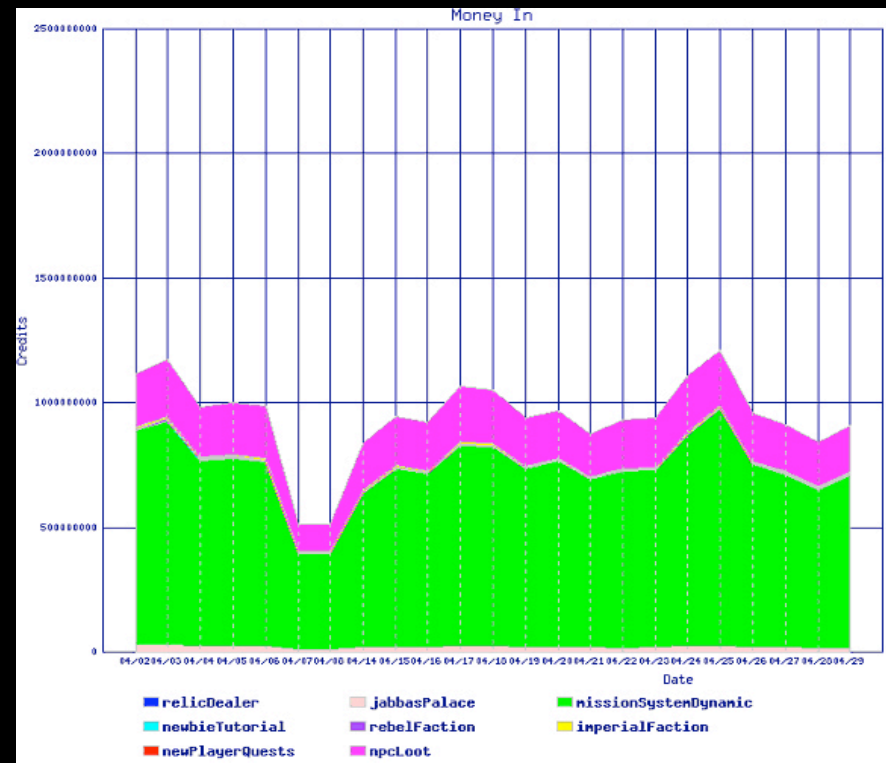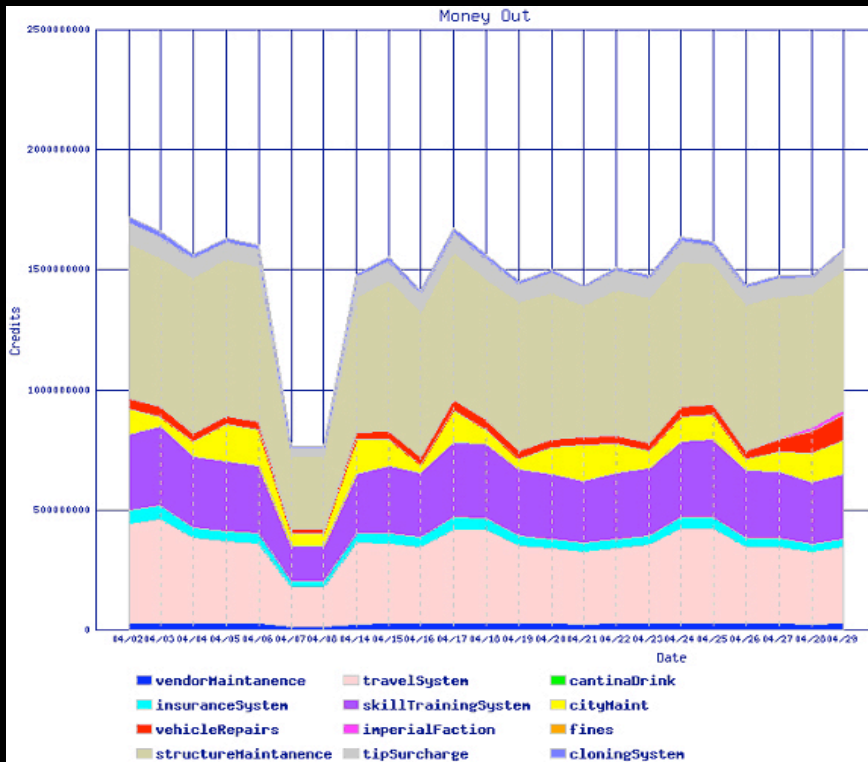
Advertising

Game Hackers

- Game Hackers are particularly cleavers: they are players
- Hacking on line games and in particular MMOG is an attack again a society in a virtual world
- It is an anticipation of the attacks against the « real e society »

References

"Note that Blizzard Entertainment either owns, or has exclusively licensed, all of the content which appears in World of Warcraft. Therefore, no one has the right to "sell" Blizzard Entertainments content, except Blizzard Entertainment! So Blizzard Entertainment does not recognize any property claims outside of World of Warcraft or the purported sale, gift or trade in the "real world" of anything related to World of Warcraft. Accordingly, you may not sell items for "real" money or exchange items outside of World of Warcraft."

Figure 2: An extract of the World of Warcraft contract

"To start a duel, select the player you wish to duel. Right-click on the player's portrait and select "duel". …

You can't duel in certain areas.

You can't duel players you can attack normally.

Skills will not increase from use while duelling or engaged in PvP.

Dueling players can cast helpful spells on their allies (but not vice versa).

Players can no longer swap inventory gear while dueling.

Dueling is allowed within Everlook. "

Figure 3: Gameplay rules of a duel

Highly Inappropriate

Racial/Ethnic Extreme Sexuality/Violence Real-Life Threats Distribution of Real-Life Personal Information Sexual Orientation Posting Cheats, Hacks, Trojan Horses, or Malicious Programs Impersonating a Blizzard Employee Posting Unreleased Content

Moderately Inappropriate

Inappropriate Harassing or Defamatory Major Religions or Religious Figures National Illegal Drugs or Activities Spamming and Trolling Advertising Discussing Disciplinary Actions

Figure 4: items for chat rules in MMORPG

Examples

- **Unauthorized used of AI:**
  - A player is not allowed to play without being physically presents at the client side (using autonomous agent or programmed automata)
  - Attack attach again this rule is a sabotage against the provider contract
  - It can be rather easily implemented and is very difficult to detect. Even if it is detected, it is practically impossible to prove a faulty behavior.

Examples

- **Cheating by Deny of Player Services:**
  - A cheater player gains advantages by denying service of other players
  - A cheater can slowdown opponent in a real-time game by carefully flooding his network connection
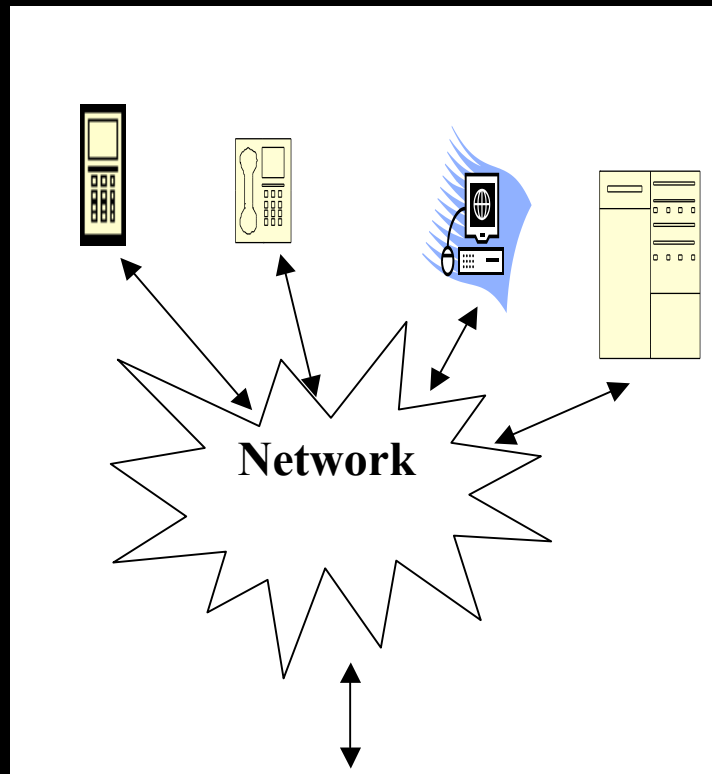 - Think about on line voting or online auctions

The formal and un formal problem

- What is a correct behavior?

Pro-active, ubiquitous….

A world of games

Unified Plat-Form for Games

Network protocols	Data Synchronization	Game Consistency and synchronization protocol Semantic filtering Game Scene (Virtual representation)	Game execution

Pro-active games

The game interact asynchronusly with the player's life: Majestic, In Memoriam

Interface Giving Inputs of Real World : Smart Object

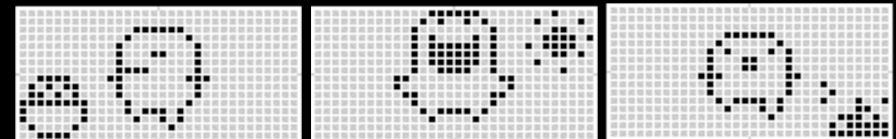
Lovegety (Erfolg Co, 2000)

QRIO (Yoshihiro Kuroki, 2003)
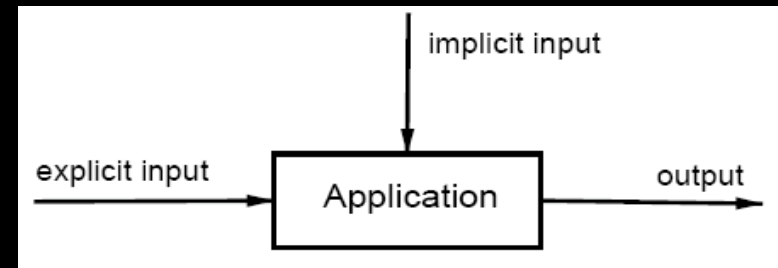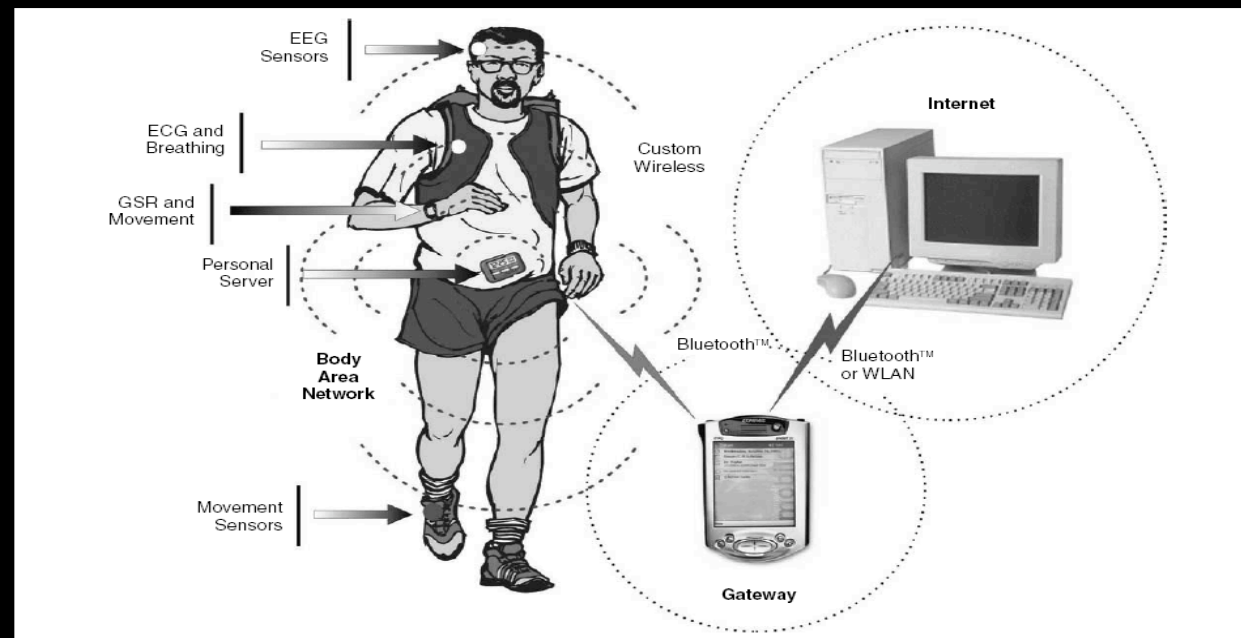

Furby (Dave Hampton, 1998))

Tamagotchi (Aki Maita, 1997)

Interface Giving Inputs of Real World : **Ubicomp**

- ν Context-Aware

- ν Location-Aware

Rayman on Wii

Pro Active Game (2)

- The interaction between the virtual universe and the player can not be formally distinguished from the interactions between the real world and the player through broadcast (radio, TV, Web even newspapers) and active media (phone, mail, videoconferences…)
- The three steps of imbrications between the "real and the virtual world":
  - Virtual world sends some messages to the real world (phone, sms, mail)
  - There is a mapping between real and virtual objects (localization, smart objects)
  - Real events (sports, politics, performances interact with the virtual world)

Botfighter 2

From nightmares to dreams

ν A virtual family which will be much more attentive than the real one. They will never forget your anniversary, and will automatically answer to your loving mails. At a given time you may be unable to know if your virtual children are NPC generated by an AI program or the avatar of other players.

ν An extension of augmented reality systems: the virtual world can provide practical or emotional help to people. It can be the basis of new social relationships and the kernel of worldwide social exchanges.
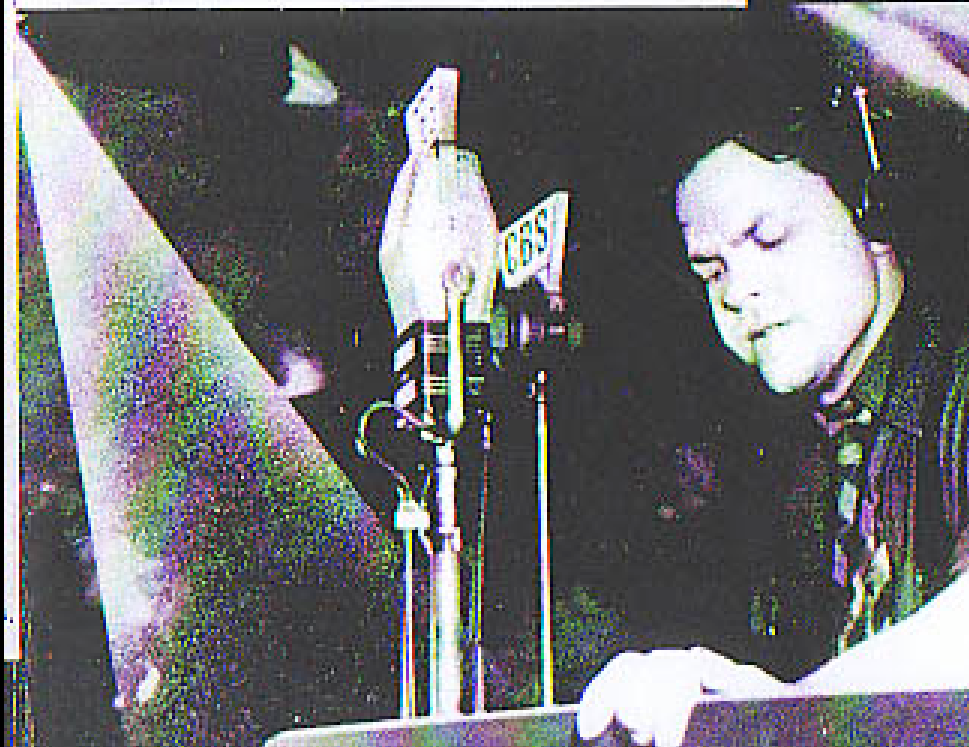
Is it New ?

What's makes video games different

Starting from two point of views

- ν Meaningful play in a game emerges from the relationship between player action and system outcome (Zimmerman)
- ν At their simplest level, social game systems are those games that support, enable, encourage, reward or punish different social behavior. (Pizer)

The failure of on Line SIMS

The kernel of the game design

ν Any good game design relies on an implicit or explicit model of the gamer psychology or sociology

ν This model will become more and more dynamic and coded in the game program
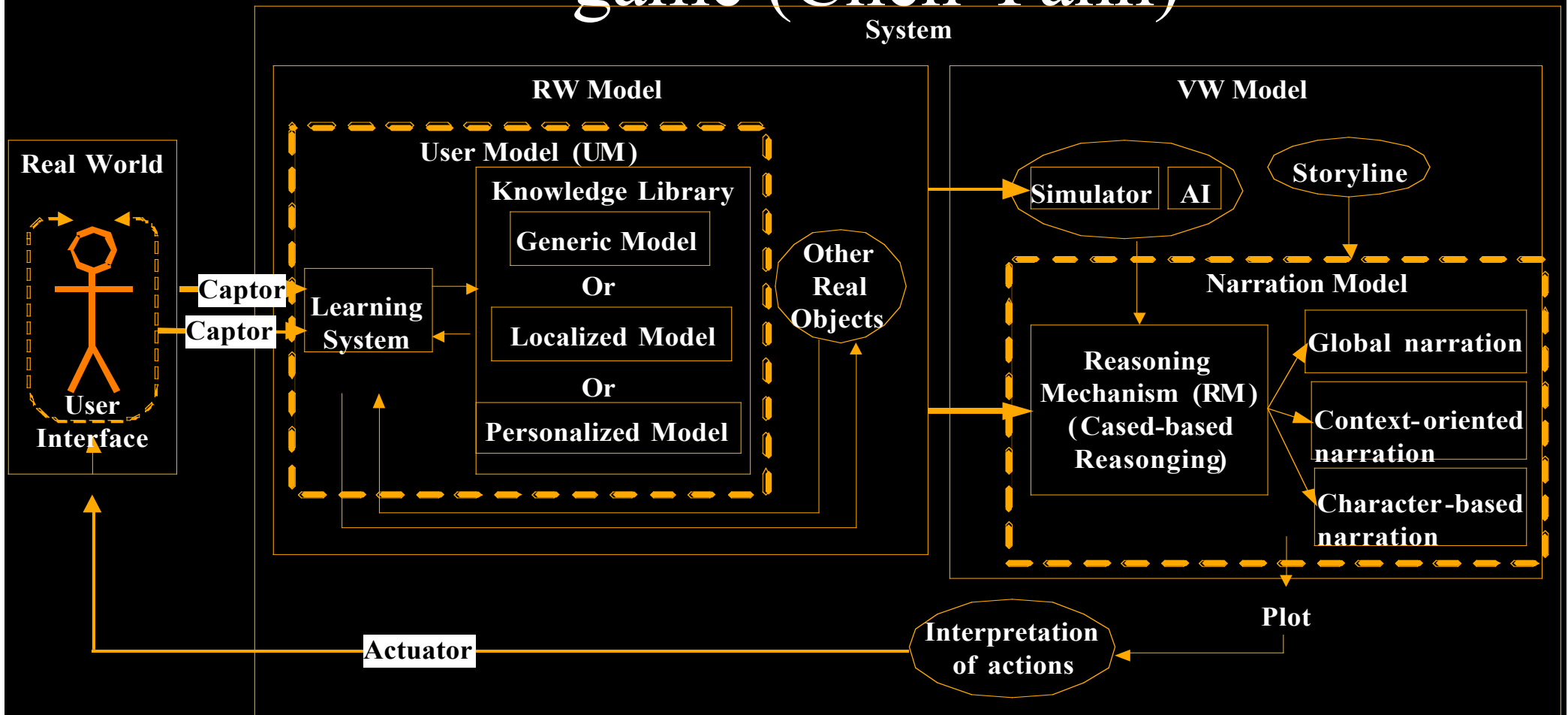
Intelligent games

The art of simulation:
- ν Goal oriented (sociological, psychological)
- ν Believable environment (non player characters)
- ν Interactive storytelling
- ν Adaptative game progression

= From the user point of view

Example IA LOD

Architecture of an adaptative game (Chen Yann)

System

RW Model

VW Model

Real World

User Model (UM)

Knowledge Library

Generic Model

Or

Localized Model

Or

Personalized Model

User Interface

Captor

Captor

Learning System

Other Real Objects

Simulator | **AI**

Storyline

Narration Model

Reasoning Mechanism (RM) (Cased-based Reasonging)

Global narration

Context-oriented narration

Character-based narration

Plot

Actuator

Interpretation of actions

The knowledge basis of the player model from an individual point of view

- ˅ Who is he and where is he
- ˅ What is his perception of the world
- ˅ What does he know (knowledge and skills)
- ˅ What does he like and what he does not like

The knowledge basis of the player model el from an social point of view

- ν Who is he (culture and education)
- ν Who are his friends and enemies
- ν From which club he is a member
- ν What are his habbits as a consumer
- ν What are his political opinions

Conclusion: Game art ?

- Art works based on game technology , "art about games" more than game art
- On Line Games the future of broadcast media? small chance to see the birth of a game art.
- Game as an evolution of cinema ?, the ability to create art games and to revive the contents of games depends on the emergence of authors games.
- The birth of author games relies on
  - A cultural recognition
  - The birth of alternate production systems, government helps and the appearance of a new generation of game designers with provocative ideas.
  - A provocative generation of game designers

ν kzorg.mov

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