GRAND DESIGNS

DESIGN THINKING IN GAMES

GRAPHIC DESIGN

TOM FISHER - IMAGINETIC

BY DESIGN:
RULES VS. EXPERIENCE

Rules

The science of game design

How the game is played

Physics
Modeling
Action – Effect
Simulation

Experience

The art of game design

What the player feels

Psychology
Communication
Suspension of disbelief
Engagement

THE GAME DESIGNER CREATES AN IMAGINARY EXPERIENCE

Jesse Schell
The Art of Game Design (2008)

- Game ≠ Experience

- Game ➢ Experience

- Players and game are real, the experience is *imaginary*

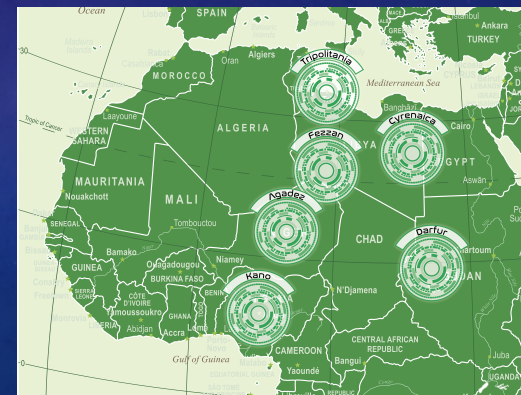# SHAPING THE GAME EXPERIENCE

Video Games

Physical Games

Bioshock
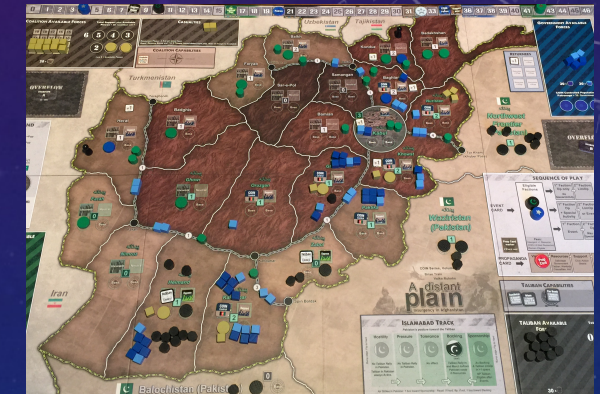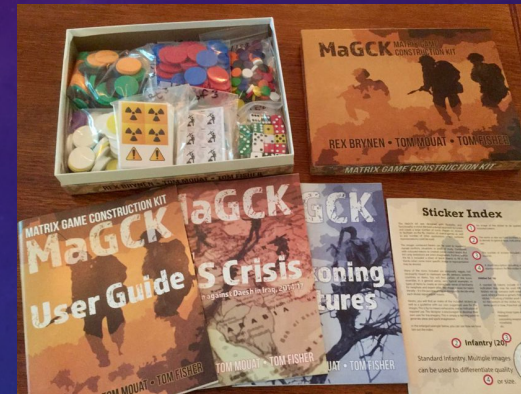

Tomorrow

ELEMENTS THAT SHAPE PHYSICAL GAMES' EXPERIENCE

- Rules (invisible in many video games)
  - Keep the rules out of the way
- Methods
  - Application of rules
    - Role of chance
- Facilitation
- Materials
  - Components
  - Supporting Materials
  - Multimedia

SHAPING THE VISUAL EXPERIENCE
THE ART AND SCIENCE OF GRAPHIC DESIGN

- **Norman's 3 Levels of Design (Experience)**
  - Visceral
  - Behavioral
  - Reflective

VISCERAL DESIGN

- Appearance driven
  - Shape
  - Colour
  - Style
- Attitudes
- Beliefs
- Feelings
- Entirely Imaginary Construct

1 Connections North

2 Connections North

3 CONNECTIONS NORTH

4 Connections North

PERCEPTION IMPACTS THE EXPERIENCE

BEHAVIORAL DESIGN

- Usability
  - Pleasure derived from use
  - Effectiveness of use
- Ease of finding information
  - Reference
- Ease of play

Aftershock Gender Dimensions Expansion

REFLECTIVE DESIGN

- Rationalization of the experience

- Intellectual effect of the experience

- Desirability

- Mediates the behavioral level of design

  - Bad physical design can be very difficult to overcome

TAKEAWAYS:

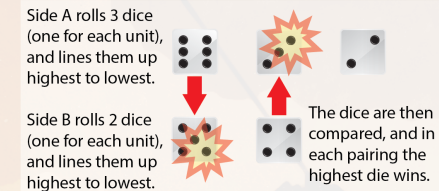THREE BASIC PRINCIPLES TO APPLY TO PHYSICAL GAME DESIGN

OCCAM'S RAZOR

- The simplest solution is almost always the best

- A design isn't finished when there is nothing more to add, but when there is nothing left to take away.

    - If an element is to be included it should have a specific purpose.

        - Theme

        - Mood

        - Reinforcement

DUAL-CODING

- The brain process visual information 60 000 X faster than text

- Text reinforces imagery, helping the brain absorb and remember information

- It is easier to process information accompanied by visual cues

example, if A had rolled three 6s).

Side A rolls 3 dice (one for each unit), and lines them up highest to lowest.

Side B rolls 2 dice (one for each unit), and lines them up highest to lowest.

The dice are then compared, and in each pairing the highest die wins.

Example 7

Depending on the game, combat may consist of one round of **SCRUD** or several (usually two or three). This should be known by players in advance, based on the time-scale of the game and the speed with which combat might produce a clear outcome. Alternatively, players might also be given the option of announcing their intended tempo of operations, and the number of rounds of **SCRUD** determined by this: two cautious forces skirmishing might involve a single round of combat, while more aggressive engagement on both sides might involve three rounds.

If multiple rounds are used, players can also be given the option of discontinuing combat and retreating after the first round, although only if withdrawal seems plausible given the situation. In this way, a more mobile scouting force might be able to easily disengage from a slower enemy, while a mechanized assault with artillery support against infantry would tend to pin the enemy in position, making withdrawal difficult.

In many matrix games, forces may not be evenly matched but rather be of differing qualities and combat capabilities:

older aircraft might face 5th generation fighters, or elite special forces go up against local militias. In such cases, the initial die rolls can be modified by the troop quality. *A Reckoning of Vultures*, for example, recognizes four different qualities of troops, with die roll modifiers ranging from +1 (elite forces, armour) through 0 (regular infantry), -1 (police, militias) and -2 (protesters). In such cases, the dice are rolled as above, but each die is immediately modified to reflect its quality. In such cases, is convenient to use dice of different colours to denote different levels of bonus:

- **black +2**
- **green +1**
- **white 0**
- **yellow -1**
- **red -2**

Mats provided with *MaGCK* summarize these modifiers, and can be placed in easy view on the map or table.

Let us say, for example, that four groups of National Union of Toilers protesters are trying to defeat government infantry and elite Presidential Guard outside the Presidential Palace. There are more of the protesters, but they lack the weapons and training of the military (Example #8).

The result is that the protesters suffer a **major defeat**: In this case, placards and proletarian zeal could not compete with the brutality, bullets, and bayonets of the dictatorship. If NUT wishes to defeat the military in open confrontation,

The government rolls 2 dice (one for each unit), and lines them up highest to lowest.

+1 Elite

+0 Regulars

Bonuses and penalties are then applied, depending on troop quality.

The dice are then compared, and in each pairing the highest die wins.

The protesters roll 4 dice (one for each unit), and line them up highest to lowest.

-2 Protesters -2 Protesters -2 Protesters -2 Protesters

Example 8

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A Distant Plain - Volko Ruhnke, Brian Train

MENTAL MODELS

- Easier for a user to understand something if they can model it off something they already understand

SUMMARY

- The game experience is an entirely imaginary construct, separate, but deriving, from the game.

- Visceral response is automatic and subconscious

- Behavioral response is affected by ease and pleasure of use

- Very difficult to attain a positive reflective response if visceral and behavioral are negative

3 Non-graphic designer takeaway tools

- Occam's Razor
  - KISS principle
  - All elements should have a purpose
- Dual-Coding
  - Reinforce text with images
- Mental models
  - Make it familiar