A General Theory of Dramatic Structure for Interactive 3D Environments

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Traditional narrative theory

“You need characters in order to have drama.”

- Create drama by building tensions between characters.
- Audience engagement comes through identification with characters.
- Assumes traditional medium (book, theater, film) with passive audience.
But:

- There is drama in climbing a mountain, watching a sunset, wandering through a city.

- The audience – YOU – are interacting with the environment

- The drama takes place between YOU and the environment.

- You have agency -> emotional responsibility for your actions and outcomes
Two forms of “first person viewpoint”:

- Traditional narrative media:
  First person *narrative* viewpoint

- Interactive media:
  First person *experiential* viewpoint
First person *narrative* viewpoint

..
First person experiential viewpoint

..
First person *experiential* viewpoint

- Designer creates framework of experiences for the user.

- User = Audience
  = Main Character = Silent Narrator

- “I am experiencing something myself “

- User has *agency* – story doesn’t happen without her engagement.
First person *experiential* viewpoint

Focus on the user:

- “Character development” should happen *in user*.
- i.e. designer choreographs emotional journey the user should go through while experiencing the piece.
First person *experiential* viewpoint

Real life examples:

- Non-competitive performative (e.g. music, sport)
- Rituals/ceremonies (e.g. weddings)
- Guided tours (e.g. citywalks, castles)
Third person experiential viewpoint

3rd person POV is special case of 1st p. POV

- i.e. “the world” includes my avatar

- Experience of avatar NOT important

- Experience of user while manipulating avatar IS important (e.g. Laura Croft)
Dramatic interest in games:

Interactive by definition

- Audience = User

- User follows rules to achieve goal

- User investment of time, effort creates engagement
Who is left out if interactivity == games?

Non-gamers who:

- hate to lose or hate competition

- don’t value investing time into learning rules, solving puzzles

But also:

- Situations with limited time
  (gallery, museum, public space, websurfer)
Who is left out if interactivity == games?

- We need to develop interactive structures with fewer rules to reach a wider audience.

- Focus more on process / experience rather than learning rules/achieving goals
What I was looking for:

- General theory of dramatic structure applicable to all media
- “Abstracted” to understand how emotion is provoked in humans as response to aesthetic experience

-> independent of medium
Emotion and Meaning in Music (Meyer, 1952)

Psychological theory of emotional affect:

- Emotion is aroused when a tendency to respond to a stimulus is arrested/inhibited

  e.g. smoker reaches for cigarettes, but pack is empty.

- Conscious or unconscious tendency to respond creates “expectation.”

- Arresting that tendency creates emotion
Emotion and Meaning in Music (Meyer, 1952)

In music (or any time-based art form)

- Music works within defined tradition or structure: e.g. medieval Western, classical Western, Jazz, Rai, US Rock, etc

- Within a given structure rules & conventions define (for example):
  - what is perceived as “happy,” “sad,” etc.
  - “allowable/expected” transitions
  - (e.g. „Sukiyaki“ – „Ue o muite aruko“)
Emotion and Meaning in Music (Meyer, 1952)

Within a given structure, composers provoke emotional responses by:

- setting up listeners' expectations, then

- playing with their expectations: surprising, frustrating, rewarding, etc.
Emotion and Meaning in Music (Meyer, 1952)

Examples:

- Repetition creates expectation (and desire) for change and completion

- Doubtful / ambiguous stimulus (significance, function, outcome unclear) creates desire for clarity

  -> we believe in purposefulness and integrity of the artist.
Emotion and Meaning in Music (Meyer, 1952)

But manner of clarification not predictable:

- Expectation creates state of suspense
- Suspense is ignorance of future course of events,
- ... which creates doubt and uncertainty,
- ... which is perceived as a lack of control,
- ... which creates apprehension and “fear”

-> even if there is no specific object causing this fear.
Emotion and Meaning in Music (Meyer, 1952)

Any stimulus must be progressively intensified over time

- Effectiveness diminishes as we become used to the stimulus.

- Without change in stimulus, expectation of relief (or some sort of change) diminishes

  -> i.e. we lose interest and disengage
Does drama theory relate to music?

Freytag Diagram (Laurel, “Computers as Theatre”)

Exposition
Setting-
Mood/Tone-
Other information

Rising Action

Climax

Falling Action

Resolution
Sonata-allegro form (stolen off the web):
Musical form vis a vis narrative form

Conversation with Betsy Marvit, composer

- Introduction / opening sets general mood (i.e. expectations)

- Introducing main theme is like introducing ‘main character’
Musical form vis a vis narrative form

- Secondary theme = new and different character
  - What is their relationship?
  - How do they cause each other to develop?
    i.e. creates *anticipation*

- Resolution of dissonance/conflict between themes is like resolution of story
Consequences for interactive media

Designer composes choreography for story

- Leads user through sequence of dramatic moods, experiences
  -> like composer composing a symphony
  -> hyperlinked structure: will be episodic rather than one grand climax

- Allow user to have agency -> emotional responsibility for their actions and outcomes
Consequences for interactive media

Focus on *internal emotional states* of user

- What should user feel at each stage?
- Curiosity, trepidation, delight, fear, surprise, frustration, relief, exaltation
- Create balance of positive and negative
Consequences for interactive visual media

Ideally using life-sized image:

- Engage kinesthetic sense, sense of scale

- Body’s perceptual mechanisms respond as if images, events are real
Philip Thiel, “People, Paths, and Purposes”

Emotional effect of

- space

- sequences of spaces on the user

  -> from first person *experiential* perspective
Anatomy of space
Kinesthetic experience of space

...
Space Establishing Elements (SEE)
Order, explicitness of space

Emotional affect depends on situation:

- comforting or claustrophobic
- freedom or loneliness
- exhilaration or vertigo
Emotions reinforced / determined by:

Music, light, denotation of environment (prison, garden), etc.
Vietnam Veterans Memorial (WaDC, Maya Lin)

Exposition (opening scene / overview)
Vietnam Veterans Memorial (WaDC, Maya Lin)

Rising action (development):
- Descend into V
- Names, height of wall increases, enclose you

Climax:
- Apex - height of our involvement in Vietnam
- Names, wall 10’ high.
Vietnam Veterans Memorial \textit{(WaDC, Maya Lin)}

Falling action (denouement):
- Deaths, height of wall reduces
Vietnam Veterans Memorial (WaDC, Maya Lin)

Resolution:
- Re-emerge into daily life
How does our theory fit in here?

- Spatial, metaphorical experience

- Not character-based i.e. NOT interaction between two soldiers.

- First person experiential viewpoint: focuses on effect of space on your emotions.
How does it engage us?

Yes, there are characters: other visitors add to emotionality of the environment, searching for names, leaving offerings

But main effect is on user:

- Interactive - visitors must physically engage with the piece and descend into the ‘V’

- Addresses our sense of scale, enclosure
Summary

- First person *experiential* viewpoint
- Drama takes place between *user and environment* (which can include characters)
- User has *agency* -> *emotional responsibility* for actions and outcomes
- “Character development” happens *in user.*
- Designer choreographs *emotional journey* for user.
Summary

Within a known structure provoke emotional responses by:

- setting up expectations, then

- playing with the expectations: surprising, frustrating, rewarding, etc.

- Create balance of positive and negative to avoid boredom, stimulation overload
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