Nonlinear Attraction Design Approach

DISCLAIMER: This is unorganized research. What you are reading is a glimpse into my thought process. I'm taking you on a journey and we'll see where this ends up. This is a VERY incomplete document, and I will continue to add to it. Thanks for reading!

To understand immersive theatre/themed entertainment in the modern age, one must have a grasp on the fundamentals of game design. Game design, since the 1990's with the release of the Sony PlayStation and Nintendo 64, has been taking cues from themed entertainment design as well as immersive theatre design, and those mediums have been taking from game design as well. When video games transitioned to 3D, developers were forced to think about how a player will navigate a space with this newfound level of freedom. Some developers took a more free-roaming nonlinear approach with games like Super Mario 64 and Grand Theft Auto III. These games, along with many others, allow the player to freely roam a space, achieving their goals in whatever way the players see fit by leveraging the games movement/mechanics that developers have provided to them. Other examples of this include Super Mario Odyssey, Metal Gear Solid V, The Legend of Zelda: Breath of the Wild/Tears of the Kingdom, etc. On the other hand, some developers decided to take a linear approach. By reigning in the players abilities/freedoms, developers can take other aspects of game design in all new creative directions. These aspects of game design include storytelling, presentation, introducing new mechanics, etc. Games that follow this direction include The Last of Us, Resident Evil 4, Uncharted, Super Mario Galaxy, and more.

Looking at the two sides of this coin through the lens of themed entertainment and immersive theater (or even just theatre generally), the similarities pile on immediately. Examining a linear approach, that's pretty much any 'conventional' form of theatre. Artists want people to experience their work in a specific way, and this is widely understood by the public that they are to enter a space and sit down to enjoy the show. That is how most performances go. Even for more elaborate performances within theatre, they like to keep the audience taking a story in on a linear track, and rightfully so. There is a pace to performances and artists have a set way for the audience to take in their art. Even within themed entertainment we see the same things. Creatives in the field design even the most elaborate and exciting

experiences like Rise of the Resistance, Indiana Jones Adventure, etc. to be viewed on a track (even when there is no track). It wouldn't make sense for the artists to just let the audience take these experiences in at their own pace, as that could break immersion, dampen the intensity, and make for a "bad show."

When looking at the nonlinear approach that game design takes and trying to find a way to relate these aspects of game design to themed entertainment's attractions, it can't necessarily be done in the ways that linear shows can be related back to theater. However, when zooming out and looking beyond just the attractions that are designed for an audience, we see exactly what it is themed entertainment designers have been doing with a sand box approach. These parks are themselves the sand box. A "player" looks at a theme park and decides how they are going to approach the goals that they created for themselves whether that be experiencing attractions, relaxing, eating food, buying merchandise, etc. The player is given tools to traverse the park and complete the tasks at hand. They traverse at their own pace whether it's on foot, mobility scooter, or transportation provided by the park. And the park provides the player with tools to make their decisions and skip lines efficiently with a park map, a mobile app, opportunities to skip the line, or accessibility options. The ways a person navigates the parks and interacts with it are the "game mechanics."

What if this type of nonlinear design could be brought to an attraction/show? Well, it already has. Bumper cars, while using a very limited space, gives its audience a vehicle for them to control themselves. The only objective at that point is to bump into other vehicles, however the key here is that those in the vehicles now have a level of freedom no ride has given them previously. They can choose where their car goes and what cars they want to bump into or not bump into. Bumper cars is a minor example of what nonlinear attractions are. However, can nonlinear design in attractions/shows go beyond just bumper cars?

A starting point to non-linearity is traversal. Giving the player freedom to traverse a space at their own pace. But how is this possible in the context of a theme park? Well, using ride vehicles, it isn't. Giving people a ride vehicle to control without any sort of limitations will lead to problems such as capacity, bottle necking traffic, poor pacing, and most importantly a lack of safety. Taking safety concerns out of the picture, addressing the other issues at hand is no easy task. However, we can set aside the issue of capacity and bottle necking, as that really is more of an engineering

problem and less of a designer issue especially when looking at things through a blue-sky lens. So, that leaves pacing. Designers are left with a limited amount of time and space, and they need to make sure that every inch is used efficiently. Creating a non-linear attraction with these restraints leads designers to an immediate roadblock. The small spaces are now even smaller, as the audience now needs a larger level of freedom they didn't have previously. Larger spaces for the audience mean less room for show elements. Less room for show elements means less time spent in the show building, leading to a shorter ride experience, potentially leading to poor pacing. To create a nonlinear attraction that utilizes a vehicle, the attraction must have a significantly larger show space.

Looking to linear design in attractions for help, they sometimes rectify the issue of space by padding things out by slowing the ride vehicle down or considering the line itself part of the experience. Pirates of the Caribbean at Disneyland is around 15 minutes long; this is mostly because the boat moves through scenes slower than the average walking speed. The nonlinear vehicles speed could be restricted to increase space, but the problem is that would be boring to control. Therefore, a vehicle should not be considered for this type of design, as it is impractical. Nonlinear design in attractions should use the approach that immersive theatre does. People are going to use their feet.

We are much slower and smaller compared to vehicles, therefore there is less need for space. With that issue resolved, we can begin to brainstorm what this show would even look like. No matter what, a determination must be made about the level of interactivity that audience can have with a show like this. Sure, they can experience the show in the way that they want, but how involved are they in a show like this? Are they the center of attention? Are they a witness? Both can be done with success, but designers can break new ground if they lean into the interactivity. Linear shows have been leaning into interactivity for a couple of decades now. This is usually done by giving the audience a "gun" (Toy Story Mania, Men in Black, and Mario Kart). Other experiences allow the audience to speak with actors briefly before a show starts. In Sleep No More, some individuals will be picked out and given experiences specific to them, altering their own individual story. Other experiences allow the audience to interact and solve problems, but there may only be one solution to that problem that only leads to a single outcome.

What if all these kinds of interactivity could be combined into a show that gives the audience a high level of freedom where their own actions can alter a story?

Some key aspects while designing must be ensured:

The Audience's Freedom Will Not Be Compromised.
At all times, those participating should feel that they are in control of their own decisions and responsible for their actions. Even entering the show should feel like an organic transition in a decision that was made by them.

The Show Must Be Designed to Be Completely Different for Each Person/Group.
Completely avoiding linearity means that outcomes must vary in a vast way. Every door entered should matter. How a problem is solved should matter. The way participants interact with their surroundings should matter.

The Show Must Be Designed in Such a Way That Problems Can Be Solved in Multiple Ways with Multiple Pathways for The Story to Unfold.
Reiterating what was said before, this is a show that should make people feel as though they are in a video game through a high level of interactivity and player freedom.

How is this going to be designed?

There's somewhat of a crossroads in front of me as a designer because there are several ways to design something like this. There could be multiple subobjectives laid out that need to be completed in any order to complete the main objective. There could be multiple pathways to accomplish the goal. It could be a combination of the two. There's a lot to ponder.

This experience is interactive. To make an experience like this more engaging, subobjectives should be included in some capacity. Just to make things clearer, a subobjective is essentially a step that is made in order to complete the main objective. For example, if the main objective is to make toast, the subobjectives are plugging in the toaster, getting the bread, slicing it, etc. The question then becomes how the subobjectives are implemented. They could be a requirement to complete the main objective, or they could be optional. An argument can be made that making another

objective other than the main objective is contradictive to nonlinear design. Creating a requirement to complete something is restrictive to player freedom. The problem with that argument is that it derives mostly from video game design. And it mostly comes from the idea that this is 100% a nonlinear show. It must be remembered that this idea that I am delving into is essentially a subobjective itself. No one had to enter this space. On top of that the idea of total nonlinearity is nice, however it begins to get stale after a while if linearity is not introduced into that production. People aren't going to feel like they have accomplished something if no objective has been placed in front of them. So, some linearity within nonlinearity can go a long way in helping give an audience the positive feedback that they want in interactivity.

The main objective will be placed towards the beginning. It should be one of the first things visible when entering but should be blocked off until certain requirements have been met. In my experience designing for audience interactivity, you're consistently walking a thin line between treating the audience like they're a baby and holding their hand through things; not giving enough information and leaving your audience lost. The goal in designing interactivity is to give as much information to the audience without explicitly telling them what to do. This is done through context clues, visual cues, sound cues, kinetics, etc. The possibilities are vast, but based on my own experience, even though you think you couldn't be clearer, someone isn't going to understand you. Putting the main objective front and center communicates to the audience that what is in front of them is important and should strike their curiosity. Then, creating visible pathways that lead to subobjectives. The premise of everything should be laid out in a way that tells the audience what they're there for.

The subobjectives are where things get more exciting. You want to encourage interactivity. What can we ask people to do? There are plenty of possibilities. The audience could be evading booby traps, solving puzzles, or "fighting" enemies. There's so much potential. They could be given a new way of interacting with the environments throughout the show, and each subobjective tests how their knowledge of this new ability culminating in a final challenge that combines all these challenges into one final boss. I cannot stress enough how limitless this is. If there is a limit, it's just the act of implementing an idea without accidentally killing someone.

How do we theme this?

Whatever way we see fit. Nonlinearity opens new doors for designers. It should not restrict.

Brainstorming ideas to consider:

- Cave
- Cityscape
- Village
- Mansion
- The seas (like an underwater town?)
- Space (kinda typical)
- Music (exploring through sound)
- Video game adaptation (Zelda?)

Cave:
Exploring tunnels and finding hidden pathways. One large, cavernous cave acts as the hub to the tunnels and other caverns tucked away.

Cityscape:
This ties into an idea that I had for a mystery type of attraction where you explore multiple buildings in a noir themed city and uncover a truth. Uncovering clues, interviewing for information, solving puzzles/riddles could are all possible here.

Village:
Falls under the same ideas as cityscape but with a different theme

Mansion:
Again, like the cityscape and village, however in a much smaller and personal space. It would have people exploring the sprawling mansion looking for clues. Very similar to an escape room, except you're not stuck in one place.

The Seas:
Just an interesting theme. Need to think of a way to make this theme integral to the actual interactivity and story of everything. Otherwise, its just a fun theme and nothing else.

Space:
Same as the seas. Could be cool, but needs more in order to actually work

Music:
A top contender. It feeds into an idea I've been exploring for a "Music Pavillion" that centers around showcasing the art of music and sound and how we interact with each other through sound. This could be a fascinating addition to the campus that incorporates interactivity. Interactivity is vital to engaging people with music and sound. People would be exploring spaces through sound.

Video Game Adaptation:
Probably shouldn't do this as I don't know if it's allowed, but my main source of inspiration for this is The Legend of Zelda. It's very easy to directly adapt this through this way of designing.

Top Candidates:

- Music
- Video Game Adaptation
- Mansion
- Cityscape

Music has the potential to be an engaging and fun attraction. Probably the most interesting to me because it ties so well into my other idea, and the additions that I had planned for the music pavilion.

Video Game Adaptation is what inspired this entire essay to be written, however I don't know if I'm even allowed to talk about this. Nintendo may kill me for mentioning Link. But I really like the idea of tying together this design philosophy

Mansion helps put together a murder mystery attraction I had been pondering for a while. I wasn't sure how to actually implement the idea of it, however with this kind of show, it could finally work

Cityscape was like mansion in that you are uncovering corruption and mob related things while exploring a 1920/30 city. Essentially like the mansion idea but much more spread out. Could make for a fun sprawling mystery.

I like all of these ideas. I think they're all fun to think about and ponder. Is my focus better served being out towards just one idea or can I talk about all of these? It may be best to start designing one and then seeing what sticks. Let's go with that.

Regardless of the idea, this is worth exploring. Interactivity has not gone down this path yet. There have been glimpses of it but never has it gone to this extent.
The Music Pavilion is an idea that focuses on giving audiences the opportunity to appreciate, learn, listen, and play with music together. The other attraction idea I had for this pavilion was an immersive mashup of the history of music and sound. I knew I wanted to add more to this area. I thought of different ways to have people learn to play instruments, areas for shows, and more. I wasn't able to come up with the best fit up until now. In order to keep music fresh and intriguing, there should be an emphasis on involving the audience in the sound making process. This idea of creating an attraction focused on interactivity is a perfect fit for this space.

The problem with this attraction idea lies in designing it. I had a similar thing to ask about the music history attraction: How do you design for a topic that is so broad and ever changing? It's hard, but not impossible. I think the best course of action would be to tackle one specific scenario and explore that setting. What setting could be explored that can best aid the music interactivity?

Potential

- A stage?
- A famous artists estate
- A whimsical land that visualizes sound in a magical way

A stage is somewhat unoriginal. An estate sounds kind of boring to me. A whimsical less grounded aesthetic is a better idea but much more challenging to design for, as it isn't easy to pick up on visual cues when aren't recognizable to the audience.

The Legend of Zelda, linear or nonlinear, has essentially acted as a game design masterclass that influences the entire game industry. I don't see why its influences have to stop there. My inspiration for this entire deep dive is because of how I have connected with the series at this age, and I admire how Nintendo EPD has developed these games. Nintendo and Universal have been working together to try and create

immersive worlds based around Nintendo's franchises. It seems that Universal Creative is emphasizing that we are still able to "play" in these now physical worlds, even though there isn't a controller in our hands. Mario Kart uses augmented reality to create a fun shoot 'em up experience. Yoshi's attraction, while less interactive, does have some buttons to press during the experience. Time will tell what Universal Creative does when the Donkey Kong roller coaster opens, but it is a safe bet that there will be some kind of interactivity regardless.

Many have pondered what the next venture between Nintendo and Universal will be. I certainly have. No matter what, interactivity seems to be a requirement. So, when I thought about the idea of the inclusion of The Legend of Zelda, these ideas of audience interactivity and linearity vs nonlinearity began to circulate in my head.

"Zelda Dungeons" are designed exactly how I have described these attraction ideas would be. They translate the easiest to this format compared to my other ideas, because Nintendo has been perfected the format for almost 40 years now.

I don't know if this is the right direction to go in though, as it isn't an original idea for me to design for. And I don't particularly like the idea of designing for existing IP.