PRESERVATION

An Exploration of the Creative Process for Soucouyant Stories

Gabrielle Branche
INTERACTIVE MEDIA | Spring 2021

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Part 1: The Reflection Paper

Chapter 1: Introduction:

Every culture has its own story which becomes embedded in the daily lives of its people. We grow up hearing and reading the mythology which shaped our society for centuries. Although through the years, what was considered truth gradually became legend, even the least superstitious among us have come to know and perhaps loves these folklore and fairy tales.

Trinidad and Tobago is no different. In fact, we are a society deeply rooted in folklore. If we do not learn the stories at home, we study them at school. My strongest memory of the stories was from the year that my theatre club performed some of the legends. However, as I got older, I became more interested in Greek mythology than local folklore. In a world that is becoming more and more global and connected, I foresee some of the treads of culture unravelling. The first to go will probably be the aspects that are the least documented. This prompted my research question: *How do we preserve Oral Tradition?*

As a child, I never truly took the time to delve deeper into my country's folklore. They were just superstitious tales that I somehow always knew about. However, after reading them as an adult, I realized how detailed and somewhat menacing they are. This compounded with my memory of performing the legends led me to want to bring the worlds of these characters to life. By comparing oral, written, and immersive platforms, I strove to better understand which elements of the three forms of media were most impactful. Thus, Soucouyant Stories (henceforth referred to as SouS) was born.

Chapter 2: About Soucouyant Stories

SouS is a three-part production which showcases some of the folklore characters found in Trinidad and Tobago. The first part of the piece is a scene in which the audience is told the folklore stories by a grandmother. Growing up, it was usually the elder members of the community who would pass on the stories. This part of the production is reflecting the oral medium in which the stories are preserved. Part two of the production is an interactive, immersive session in which the characters and their environment come to life. The part comprises three scenes, each designated to a respective mythological character which was referenced in Part 1. Finally, the third part of the production is a free roam gallery with posters and physical copies of the folklore stories. This gallery allows the audience to engage with the stories through written form. Since, oral and written media are quite self-explanatory, the bulk of this essay will focus on the interactive immersive elements of the production.

When we think of interactive art, we usually assume sensors, audience participation and dynamic artwork. Interactive art is such a broad term that it cannot be clearly defined. For some, it refers to the integration and consequential alteration of a piece by the human body. In the words of Nathaniel Stern, "The body is a dynamic form full of potential". It is embodiment (i.e.: the body's potential to vary through thinking, moving, and feeling) that makes for the best interactive art (Stern, 2). For others, the definition of interactive art relies on technology. Technology has evolved to a point that interaction between varying artforms is possible (Siegel, 1). Advanced real time capture and analysis allows for the creation of multi-modal physical-digital work. (James et al., 471).

Interactive art is often coupled with the idea of immersive art. Nowadays more and more artists are steering away from passive work. We are sensory beings with more than just our eyes and our ears. Immersive art usually capitalizes on this fact by creating scenographically rich, multisensory, spatially innovative

environments often with some autonomy for the audience (Biggin, 2). Like interactive art, the definition of immersive art is a fluid one and the two are often conflated. However, there are subtle differences, namely that while interactive art relies on 'the body' to change the environment, immersive art places emphasis on experiencing the story rather than changing it (La Roche, para. 3).

SouS intersects interactive and immersive art. It is a theatrical piece in which the environment, performers and audience co-exist in an almost symbiotic relationship. To make this piece, I was required to draw upon diverging sources of inspiration. The final piece is a blend of art, technology and culture which creates a unique experience for all the parties involved in the performance. The final script along with all the technical directions can be found in Part 2 of this paper.

Chapter 3: Inspiration

The dancers, audience and physical environment all contribute to the complete creation of SouS. The dancers' movements are affected by the level of interaction of the audience. Simultaneously, the environment is affected by the dancer's and audience's movement. They all exist in a very delicate balance. In order to create such a complex piece, I had to deeply research different forms of art and find work that could help with formulating the artistic process. Two overarching productions which inspired SouS are: Punchdrunk's *Sleep No More* and *Man Better Man* by *Errol Hill.*

Error Hill is a Trinidadian Playwright. He studied in London and was a faculty member in Dartmouth College and the University of the West Indies. He started writing his own plays in order to give the West Indies (i.e., the Caribbean), its own voice and repertoire. In researching the folklore stories, I realized that there are very few resources available online which expands on this aspect of Trinbagonian culture. I was inspired by Hill's work and hoped that SouS can add to my country's theatrical, particularly folkloric, footprint. *Man Better Man,* stood out to me particularly as it is a play which tells the story of a man who engages in folk magic to win a stick-fighting contest to impress his love interest. In essence the comedy exposes much of Trinidadian folklore. The piece is both entertaining and educational. Hill weaves in the cultural context tastefully. While writing SouS, I blended the cultural aspects while still propelling the plot forward smoothly.

Figure 1: Inez (Kajha Escoffery) pleads with her brother, Brisoce (Lee Patience), not to fight Tiny Satan.
Henry, Krista. 'Man Better Man' - Fun Filled And Littered With Music. 2021, http://old.jamaica-gleaner.com/gleaner/20070925/ent/ent2.html. Accessed 16 Mar 2021

While *Man Better Man* helped me in writing the play, I drew inspiration for the immersive elements from *Sleep No More*. Punchdrunk is known to have pioneered a form of immersive theatre in which roaming audiences experience epic storytelling inside sensory theatrical worlds (The McKittrick Hotel, About, para. 14). *Sleep No More* is perhaps their most famous piece and has been performed globally. It is an award-winning theatrical experience that tells Shakespeare's Scottish Tragedy through a film-noir lens (The McKittrick Hotel, Sleep, para. 1). In New York, the piece takes place in The McKittrick Hotel and can last up to three hours. Guests embark on an individual journey with full autonomy to go where they please, for as long as they wish (The McKittrick Hotel, About, para. 3). As they journey, they will come across hotel 'guests' (or performers) in different spaces. An individual can attend *Sleep No More* fifteen times and each experience would be different. The New York Times described it as "*[Sleep No More is] in short, a voyeur's delight, with all the creepy, shameful pleasures that entails.*" (Brantley, para 8).

Sleep No More frames immersive experiences in a way that emphasizes audience effect. According to Biggin, this means the primary focus should be to induce emotional phenomenon. The experience should be realistic to the point that it produces an instinctive emotional response (Biggin, 4). I turned to *Sleep No More* for methods of creating a successful immersive theatrical piece. SouS is centered on Trinidadian Folklore. As previously stated, while the stories can be told somewhat lightheartedly, they can also be quite ominous. Through the juxtaposition of the introductory scene versus the environments of the actual mythical characters, I am striving to invoke a blend of

Figure 2: Snapshot from Sleep No More
Sara Krulwich/NY Times. Sleep No More Sophie Bortolussi As Lady Macbeth And Nicholas Bruder As Macbeth. 2011, https://www.nytimes.com/2011/04/14/theater/reviews/sleep-no-more-is-a-macbeth-in-a-hotel-review.html. Accessed 24

emotions. The audience should first feel warmth and comfort followed by an immediate contrast of discomfort and fear.

One can learn not only from *Sleep No More's* successes but also their limitations. Washington Post stated in a review that *'Clearly, the strength of Punchdrunk's convention is also its weakness: If you're free to roam and scenes are happening simultaneously, you're not going to see everything. Everyone takes in a different story.'* (Kaufman, para 41) The producers strived to create an environment so immersive that one forgets where and when he truly is, having full autonomy of his experience. However, even the slightest disruption can break this spell. Another approach is to capitalize on the audience's awareness of their boundaries and the interplay between the spell of the performance and the reality of their current time and place (14). SouS is a small-scale project and therefore does not have the resources to ensure that the spell is not broken. As such the project was delimited to the latter approach.

Chapter 4: Technical Analysis and References

Each scene, in addition to being interactive and immersive with regards to the performers, also had a technological component which complemented the character or its environment.

Figure 3: Soucouyant
Horrorpedia. Soucouyant. 2021, https://face2faceafrica.com/article/soucouyant-the-legendary-caribbean-female-fireball-deity-rooted-in-african-wizardry. Accessed 16 Mar 2021.

The first scene in Part 2 was that of the Soucouyant. The Soucouyant is an old lady who at night turns into a ball of fire and sucks the blood of animals and babies. She is used to explain the death of newborns and animals. The Soucouyant's scene is a dance choreographed to a poem which highlights the plight of the woman. While performing, the dancer's movement is tracked, and a responsive flame follows her. This piece was influenced by *Pixel,* an interactive dance piece by *CNN de Créteil et du Val-de-Marne/ Compagnie Käfig*. *Pixel* was created in collaboration with Adrien Mondot and Claire Bardainne. The show is an interplay between digital light projections and the dancer's motions striking a subtle balance between the digital and physical world. The aim was to create a piece that exists at the crossroads of the arts (CCN Creteil, para. 38). *Pixel* provides a good template on how dance is integrated with technology. Many of the other pieces used as inspiration do not intersect performing arts and technology very clearly. However, *Pixel* does this quite obviously and as such is very helpful in the creation of SouS.

The Adrien M/ Claire B Company creates a plethora of exhibitions combining the digital arts with live performing arts. Their aim is to place the human body at the heart of technological stakes (NYUAD Arts Center, para. 5). Work such as *Pixel* allowed for me to envision how the Soucouyant Scene would come together. By using the Microsoft Kinect, Processing and Mad Mapper, I was able to create a lifelike flame which elevated the dance.

Figure 4: Snapshot from the Performance of Pixel
Berger, Patrick. CCN Creteil's Pixel. 2020, https://ccncreteil.com/Pixel-1975927?lang=fr. Accessed 24 Nov 2020.

The proceeding scene, that of the Douens, was perhaps the most difficult to visualize. It serves as a transition scene between the two dances and is the most theatrical. Douens are children who died before they could be christened and who are known to lure other children into the forest at night to be lost forever. They serve a dual purpose of convincing parents to baptize their children and also to scare the children from wandering off after dark. As such, I decided to capitalize on this and have the two douens use dialogue to summon the audience and push them in the general direction of the forest.

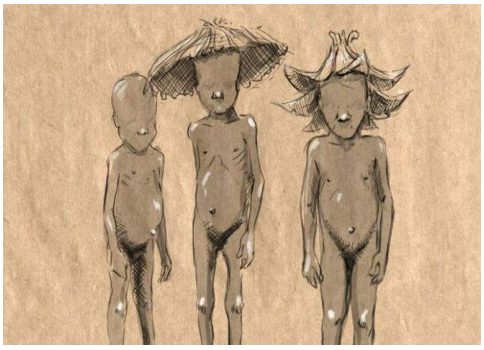

Figure 5: Douens
Avad_s. Douen (Pronounced Dwen), Caribbean Folklore.. 2021, https://aminoapps.com/c/mythfolklore/page/blog/douen-pronounced-dwen-caribbean-folklore/po6n_1RIQuRo8nNgG0NoL107Pxge22Plb. Accessed 16 Mar 2021.

Moreover, the scene is given an eerie feel due to the overhead audio. This audio would have been recorded in part 1 and edited real time so that the audience should just make out their own voices and names. This scene was challenging to implement as it required, me to learn a new software which would allow me to

edit the audio through code. The audio also gives the performers the names of the audience members so that they could address them directly by name. This scene, although somewhat comedic, is very important because it is the scene which brings the whole production together seamlessly. Once the scene is completed, the audience should find themselves in Papa Bois' forest without having given it much thought.

Papa Bois is the protector of the forest. He is part man, part goat and is known to punish hunters who take advantage of the wildlife in the forest. This is the penultimate scene in the entire production and the final scene before the audience enters the gallery (part 3). It is meant to be aesthetic and the most impactful visually speaking. This scene was very much influenced by my trip to TeamLab: *Planets* in Tokyo. The installations there remain one of the more beautiful things I have ever seen, and I wanted Papa Bois's forest to have a similar effect on my audience.

Figure 6: Papa Bois: Protector of the Forest
Perna Studios. Papa Bois - Hanie Mohd. 2020, https://www.deviantart.com/pernastudios/art/Papa-Bois-Hanie-Mohd-791874009. Accessed 24 Nov 2020.

TeamLab was founded by Toshiyuki Inoko and is an art collective comprising a multidisciplinary group of self-proclaimed ultra-technologists[1] (TeamLab, Artist, para. 1). Inoko states that *Planets* aims to blur the boundaries between body and artwork, changing our perception of the boundaries between ourselves and the world (TeamLab, Thought, para. 2). *Planets* is a great inspiration to me as the smooth integration of technology in the creation of an immersive world aligns directly with the making of a detailed environment for the theatrical piece to take place.

[1] Ultra-technologists as defined by TeamLab: A collaborative interdisciplinary group that brings together professionals from various fields of practice in the information age, TeamLab seeks to navigate the confluence of art, technology, design, and the natural world.

Figure 7: Snapshot from TeamLab Planets Exhibition
Dennis&Lydia. Girl In "The Infinite Crystal Universe". 2020, https://medium.com/dennisxlydia/teamlab-planets-tokyo-a-space-experience-1ab5880aab15. Accessed 24 Nov 2020.

Planets comprises seven multisensory, full-body immersive art installations, integrating the senses to formulate a unique experience (Dayman, para. 2). One of the most admirable aspects of *Planets* is its simplicity. The installations do not rely on complex or highly technological devices or interaction. Rather they use innovative techniques to create a sense of timelessness and gives the audience autonomy in a way that makes the interaction between the individual and the installation the true artwork. Nathaniel Stern argues that this is one of the key factors of successful interactive installation. The installation does not represent or intervene with 'the body' but rather presents movement, that is the audience's embodiment, as productive (Stern, 72). The environment of SouS, specifically Papa Bois' forest is modeled after this, maintaining simplicity in a way that is both aesthetic and effective.

Pixel was also very helpful in thinking about the implementation of the Papa Bois scene. Besides the fact that it is not immersive, one of the biggest differences between *Pixel* and SouS is the way in which the interactions between the digital and the physical take place. Dance is unpredictable and mapping pre-coded

Figure 8: Angling Mirrors in capstone studio to maximize infinity effect
Gabrielle Branche, 2021

projections onto a dancer is a very risky process. *Pixel* finds a way to work around this by mixing pre-coded and real-time graphics. Dancers are required to match their movements to the projections but there is also a technician offstage who synchronizes the projections to most of the soloists' movement. This method became very useful when programming the LED trees in Papa Bois' scene. The trees were supposed to appear responsive to both the movement in the space and the sound. I realized that it would be way more robust and efficient to pre-program the lights to the sound as there was very little variability in the sound. By calculating the times in which the trigger sounds occurred I could make it appear to be responsive, similarly to the projections to the dancers in Pixel. The lights are still responsive to the movement in real-time, but now take a blended approach.

Chapter 5: Limitations and Adaptations

All these pieces were excellent points of reference for starting off the project. However, none of them were made in a global pandemic. SouS faced some challenges that could not be pre-empted and required creative thinking and workarounds. The biggest shift in the production was moving from a live performance to a filmed performance due to Covid restrictions. I understood the situation was inevitable, but SouS was meant to be immersive theatre so despite the challenges, I remained passionate about staying true to the piece's original nature.

Serendipitously, the source of my limitations made way for new opportunities. Since I could not have a live audience, I was encouraged to film the production scene by scene. I was very hesitant at first because I am not the biggest fan of film and did not want to compromise the integrity of the piece. However, I have since come to acknowledge the advantages of filming scene by scene. For example- planning and implementing for the film process allowed for more footage from multiple cameras and a larger space for each of the scenes. In the end this seemed like the best decision as it allowed for me to create a cinematic version of the piece that would propel its chances of being performed on a larger scale in the future.

Figure 9: Photo of set from the built in Black Box Cameras
Gabrielle Branche, 2021

The process was actually quite seamless. Every afternoon, with the help of the Arts Center team, I set up the respective scenes. Once everything was set and lighting and sound were determined, the performers came in to rehearse. Once I was comfortable with how the scene was playing out, we started filming.

Filming is a very surreal experience as it gives an unique opportunity to do a piece over and over again. In live theatre, once the audience is before you, you just have to perform. There is no starting over for another take. This was slightly jarring for me as I was not really used to this and felt more pressured to achieve perfection. It also meant that my dancers were very tired at the end of the day. However, we all stuck through and thanks to the skill of my cinematographer, Matthew Tan, we got good footage quite easily.

Another challenge that came with filming was the use of microphones. This was particularly apparent in the Douens scene as their excessive movement and constant shift in tone and energy interfered with the microphone levels. It was challenging for the two performers because after weeks of being directed and trained by me to execute the piece in a specific way, it was not very easy to adapt for the needs of the mic without changing the nature of the characters themselves. However, in the end, it worked out and we were able to find a middle ground.

Figure 10: Gabi working with Douens on Set.
Matthew Tan, 2021

Throughout this project, I tried to cover my bases as much as possible and thankfully so. One of my performers got very sick on the week of filming. A limitation I had faced was the fact that the schedules for filming and use of the 'Black Box' were fixed so rescheduling was not an option at all. Even though we hoped she would recover in time, she unfortunately was still very ill on the day of her shoot. Fortunately, I had trained understudies for almost all the positions. I was very proud of my foresight which prevented what would have been a major calamity.

The one thing I would have done differently, is given the understudy a heads-up as soon as I found out that the main actor was ill. Since I had made it clear that as an understudy her job was to be on call just in case something happened. It did not occur to me that it would be a problem to call her on the day of the shoot

when I was certain that the main actor would not be able to perform. However, the understudy later informed me that she felt quite rushed into the position. This was a learning moment for me.

The final adaptation I would like to address is that of the trees in the Papa Bois scene. Those trees, quite frankly, were the bane of this project. I had decided mid-implementation that it was wise to adopt the dual process of real-time response and pre-coded response, similarly to that of *Pixel.* The trees were meant to be responsive to an ultrasonic sensor which would allow them to change color as an audience member got close to them. This feature worked pretty well. The other feature was to have the trees pre-coded to change color based on the hunter's gun shots (explained in Chapter 5). Unfortunately, there was not a 1:1 relationship between the time of the gunshots and the time the neopixels change. In fact, it was quite random and no amount of calculation and estimating could guarantee a 100% response rate. I have concluded that it has something to do with the internal working of the respective Arduinos of each tree which caused a variation in accuracy. On the day of filming, even though I had got them to work more or less in my studio, the whole mechanism broke down in the new space.

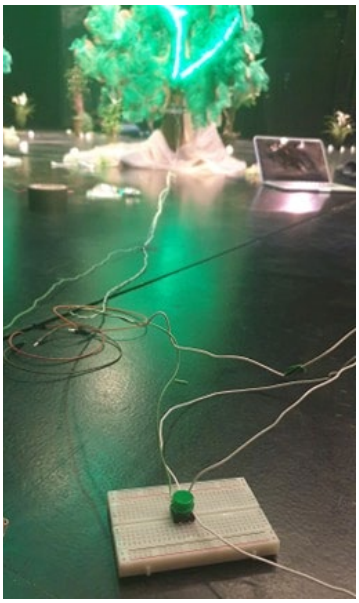

Figure 11: Button added to trees during filming.
Michael Leo Kokkat, 2021

In the end, I decided to add buttons to the trees. Once the gunshot was heard, my technical assistant and I would be behind the scenes pressing the buttons which were wired along the floor to the trees. This experience taught me that the simplest solution is often the most efficient. I had brushed aside the idea of buttons initially because I did not think it was complex enough. However, they got the job done with an accuracy that the more 'sophisticated' methods could not. This is definitely something I will take into consideration in future projects.

Overall, I would say that I was able to think spontaneously when needed. Moreover, having covered my bases as much as possible in advance ensured that the challenges that may pop up would be reduced to a minimum. Proactively thinking spared me of the need to adapt or alter greatly in the final moments. Moreover, the limitations placed upon me due to Covid simply made for a more robust performance in the form of film that I was able to share to an even wider audience.

Chapter 6: The Performance

I chose to hold two open screenings on Zoom on which the final edited version of the production was showcased. In editing, Matthew and I had ensured that as much as possible, the film would still feel immersive through the use of Point-of-View filming and creative angles. At the end of the performance, I asked all the audience members to fill out a form to better gauge the success of the piece. (The responses to this form can be found in Part 2 of this document). I then conducted a live Q&A with the audience.

Overall, the piece was well received, and the audience members felt more connected to oral tradition. The audience was asked to answer the following:

- What feelings did the piece invoke?
- Did the piece raise any questions for you?
- How do you think we could preserve oral traditions?

It is very important to acknowledge that this piece could come across differently for different audiences. I expected that in NYU Abu Dhabi where I am one of five Trinidadian students enrolled, the piece would be more informative than anything else. However, in a Caribbean context the piece would read differently and may even induce nostalgia and fear.

I was pleasantly surprised when non-Trinidadian audience members expressed that the piece made them feel nostalgic as well. Many stated that the use of the grandmother unlocked a shared culture that made them feel connected and think of the similarities and differences to their own oral traditions.

I would definitely want this piece to be able to exist in a global setting because while I do want it to be something that Trinidad and Tobago, and the Caribbean at large could appreciate, I would also want it to be a piece that could bring my culture to the forefront and serve as a launching pad into more interactive immersive theatre pieces.

The biggest surprise that came from the data collected through the form was the fact that the written medium was not considered impactful at all (see part 3 of this document for full data set). There could be two potential reasons for this. The first is that oral tradition is simply not compatible with written text. However, this is hardly likely as documented stories have allowed for a more collective understanding of information – even that of folklore. The other potential reason could be that the audience did not connect with the written platform as they were not able to experience it themselves. They were at the mercy of 2 mins of the Gallery footage that was added in the film. Perhaps had they been able to spend time in the Gallery and read the stories at their own pace, the results of the form would be different.

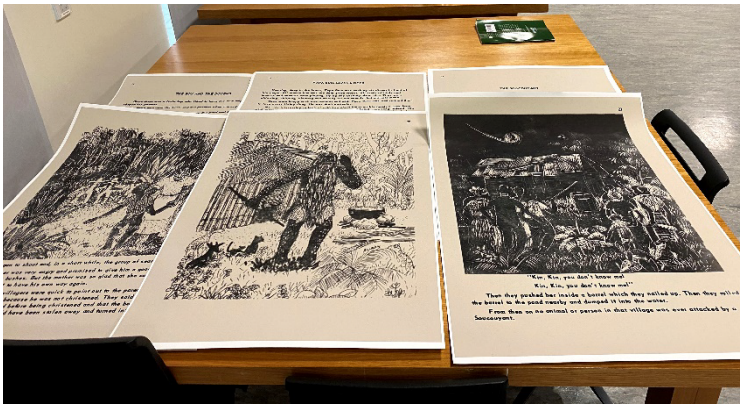

Figure 12: Photo of posters printed out for the gallery scene.
Gabrielle Branche, 2021

I want to highlight two points that came up in the Q&A which made me reflect on the piece in a very profound way. Firstly, one audience member stated that the heart of oral tradition is storytelling. Even though my piece was a contemporary adaptation of the stories, it works well because it provoked conversation and prompted viewers to think and talk about oral traditions. I am engaging in storytelling, even if not in the same way that it occurred in the past. I think this was a very important point when thinking about oral tradition because it really forces one to question, what about oral tradition are we actually trying to preserve.

Moreover, the notion that a piece like this sparks dialogue is supported by the data from the form. A significant number of participants agreed that they would be interested in exploring Trinidadian, as well as their respective local folklore, in more detail. More than 50% of attendees 'strongly agreed' and an average

of 30% more ‘agreed’. This form may have some biases as it was filled out right after watching the piece and the responses could have been influenced by the excitement of it all. However, I do think it can still be concluded that the general population is not opposed to the idea of passing on oral tradition.

Another point which I thought was very powerful was the fact that the experience, being virtual drew parallels to original storytelling. Just as we used to have to imagine the folktales as they were being told, this screening prompted us to imagine the walkthrough experience. In this way it helped challenge our imagination similarly to when we could only imagine the world of these stories as children. This point really made me appreciate having filmed the piece even more as it helped me see the unique benefit that a digital performance afforded.

I am very pleased that I was able to have these screenings as it meant that my audience was not limited to the NYUAD community but my global network. For this reason, I believe that this piece can exist in a global context in the future.

Chapter 7: Conclusion

Soucouyant Stories has gone through many stages of development. I am very excited to see how it has all come together. While filming, I looked back on my preliminary sketches that I had made six months ago. I was so satisfied to see that the final sets looked almost identical to my rough sketches. I know that adaptation is an important part of any project and Soucouyant Stories has indeed gone through many changes. However, looking at those sketches, one can safely say that Soucouyant Stories was able to stay true to its essence. I was able to create an interactive, immersive, dance, theatrical piece about Trinidadian Folklore. I am grateful for this experience as it taught me so much from project management to research to flexibility.

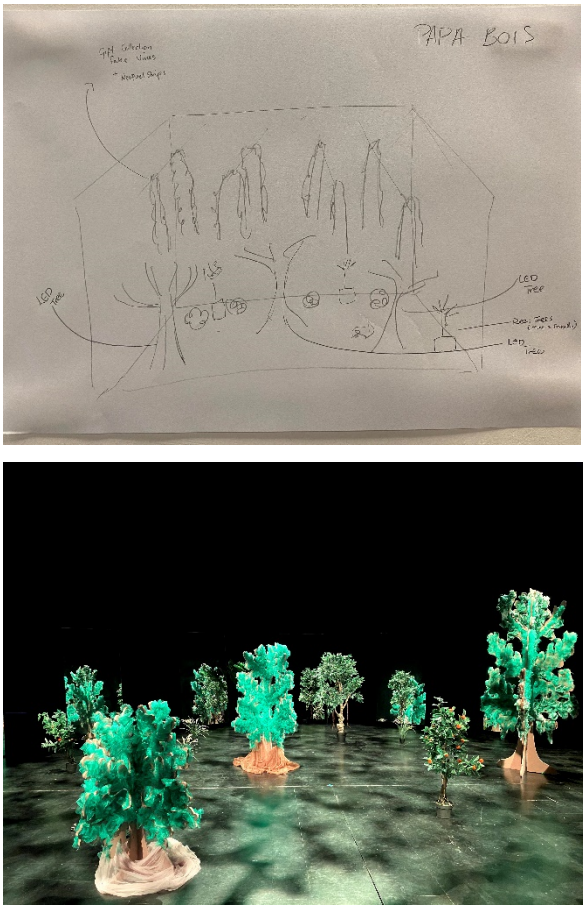

Figure 13: Comparison of Rough Sketch of Set and Final Set for Scene 4: Papa Bois
Gabrielle Branche, 2020/2021

This is not the end, however. It is merely the beginning of a journey to find out how to preserve culture and tradition in an ever-changing world. I would love to one day perform Soucouyant Stories for a live audience. Moreover, projects like Soucouyant Stories can lead the foundation of blending science and art in a region where it does not yet exist. I would love to think of other ways to integrate performing arts and technology to educate and explore topics of interest, particularly in the Caribbean. Around the world, entities such as theme parks and theatrical productions like those referenced in this paper already exist and are even taken for granted. However, this is exciting work for the Caribbean. Storytelling is deeply rooted in our culture

and history. The more we find ways to get these stories across creatively and innovatively, we open up the region to a plethora of possibility.

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Part 2: The Script

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Characters

Granny Joseph: An elderly woman (above 70). She is loud but endearing. She has seen much in life and is the matriarch of the neighborhood. People always drop into her house to say hello. She herself does not really move from her rocking chair to host her guests but everyone leaves her home well fed and entertained. The children particularly enjoy visiting her to hear her elaborate stories. In her eyes… everyone in the village is her child and she treats them as such.

Soucouyant: The Soucouyant is a woman. In the day she is a grumpy old woman. She is the opposite of Granny Joseph, unwelcoming and snappy. The children fear her, and no one really knows how she spends her time. At night she transforms into a ball of fire and sucks the blood of animals and babies. She cannot control her urges no matter how she tries. It is almost as if when she becomes the Soucouyant at night, she loses all control. She is in fact fed up with this life and just wants to be released of her fate. This shines through in her movement.

Douens: The douens are playful and mischievous children. The have a flare for the absurd. Their faces are almost never seen, and their feet are on 'backwards' They do not walk in profile. They were lost before they could be baptized and therefore have no names. It is very difficult to tell them apart. Something about their childish insanity makes them even more unsettling than the fearsome Soucouyant.

Papa Bois: Papa Bois is the protector of the forest. He is half man and half goat – similar to a satyr. He walks around with a cane and has horns in his head. He has an easy gate and a natural confidence that just exudes authority. He is caring and composed, lest his woodland creatures are hurt in which case he is extremely aggressive and has a speed and agility that is well beyond the abilities an old man should possess. He can switch from passive to protector in seconds.

Scene 1: (Granny Joseph)

Setting: *Granny is seated in a rocking chair in a corner. She is slightly elevated as if on a porch looking down on the children in her front yard. There is a spotlight on her chair that slowly fades up as people start entering.*

Alternative Setting: *she could have a bookshelf behind her or any item that shows she is inside her house.*

[Granny has a rosary in her hand and is murmuring as if she is praying. When people start entering, she looks up as if disturbed by the noise]

Oh hello Dears! Come to pay Ol' Granny Joseph a visit eh?
Well have a seat, have a seat.
What's your name? Go on, go on…

[Audience responds name]

Ahh! What a nice name! Your fadda name you that ent! Yes yes!
And you?

[Granny continues to ad lib asking for names for all 3-5 audience members]

Well good man… thank you for coming to see an old dry up woman like me…
How about I tell you a couple of stories eh… you'd like that?
But hold on….

(Yelling to the side)

Nailah! Bring something for these children to eat! And pour out some lime juice too eh! I don't want them choking!

(Enter 'Nailah[2] with snacks…possibly banana bread)

Anyway… where was I?
Yes yes…lemme tell you about the time they found a Soucouyant in the village…

One morning at about 2 o'clock a farmer got up when he heard a strange noise from his yard. He went to see what was wrong and saw blood dripping down from one of his cow's neck. As he walked closer, he saw a ball of fire flying away. He realise it was Soucouyant coming for his cows.

Now every couple month they would find a Soucouyant coming to suck the blood of animals and people. Some people also call her the Ol Higue. But the people of the village would always catch her before she could do more damage.

This time the villages hid at night and when the ball of fire flew in the air, they followed it all the way to the old shack at the edge of the village where a wicked old woman lived.

They saw the old lady putting on her skin… cause that's what the Soucouyant did… they would take off their skin and turn into a ball of fire before looking for food.

The next night when the old woman was flying about… the villagers went and rub salt and pepper inside her skin. When the Soucouyant came back and put on her

[2] Either a helper/intern on one of the douens

skin, it burns so much she started to hop and sing: Kin Kin you don't know me! Kin Kin you don't know me!

The villages push her into a barrel and rolled it into the pond and from then on nobody see a Soucouyant in years.

Hahaha… what you think? Oh gosh don't be frighten… that was year and years ago…Hahaha
You want to hear another one? Don't worry… this one not so scary. In fact, it actually very nice.
It hadda a time Papa Bois saved a deer…

Yes yes… one day deep in the forest, Papa Bois was cooking his dinner in front of his little hut. All kinds of animals was playing around him. They were happy because they were safe.

You see Papa Bois was the protector of the forest. He was very funny looking… he had two short horns, bright eyes and a gentle manner. His feet were like the hooves of a deer so he could run very very fast indeed.

Anyway, while Papa Bois was making his dinner, he heard a gunshot in the distance. There was a hunter in the forest. All the animals stop playing and on Papa Bois' signal, they all went and hide among the branches and holes. He blew his horn to warn the animals far away too.

Suddenly he saw a little deer limping and panting in his direction. He could hear a dog barking in the distance. Papa Bois hid the deer and made a new trail in an opposite direction to mislead to hunter and his dog. The dog picked up the false sent and very soon he and his master were very very lost.

Three days later a village search party found the hunter wandering around the forest hungry and tired. They realized Papa Bois had saved the deer and condemn the hunter. They left the forest and went back to the village.

As for the deer… he lived happily with Papa Bois and the other animals for years and years.

You see! A happy ending…so the hunter got a lil roughing up. He know better than to be going after animals before they fully grown.
But it getting late…is best you be off now before the douens come for you…
What's that look you giving me there? You don't know what a douen is?

Well you see a douen is a little child who does lure other little children into the forest. They does be naked except for a big straw hat that does cover their hair. The strangest part is that their feet turn backwards so that from their footprints they look like if they walking in one direction when they really going in the opposite direction.

Now if a douen hears a child's name, especially if they not baptized, they will try to steal them away to turn them into a douens. So I hope allyuh christened cause you don't want no douens coming after you.

Anyway children… my old bones need to go in meh bed and allyuh should be going to sleep anyway. Run along now… and I hope your dreams as exciting as my little stories Hahahaha!

[Spotlight fades as Granny is laughing. A light slowly grows at the entrance to the next scene. Granny has moved from her chair and is using her cane to prop open the curtain, gesturing to the audience to enter. Once they enter, she closes the curtain behind them.]

[VO: and so, they were]

Scene 2: (The Soucouyant)

Setting: *There is a silk cotton tree base nestled in the corner of the room in the area where the projections will display. Only the trunk of the tree is visible, and the roots of the tree are spread across the floor. There is a little rabbit at the base of the tree. The projections will display over the tree and the area around it.*

Initial Stage Directions: *There is a spotlight on the opposite corner that fades in as the audience enters. The Soucouyant is hunched over walking very slowly and taking deep breaths. Slowly she walks to the edge of the projection frame. She then takes off her cape to reveal a bright red suit.*

As she steps into the projection frame, flames engulf her. They grow bigger as she moves closer to the tree. At the base of the tree, she leans over the rabbit. She is interrupted by a baby screaming in the distance. She looks up.

Up until this point she is not aware of the audience's presence. But quickly her gaze shifts to the audience. At this point the dance begins.

Technological Directions: *1 to 2 projectors set up to span a large portion of the room. A Kinect is set up in order to get more depth of the dancer. As the Kinect tracks the dancer's movement a projection of a ball of fire surrounds the dancer and follows her. As she gets closer to the Soucouyant tree the flame gets bigger and as she goes further away from it, the flame gets a little smaller (she draws her power from the tree).*

**NB: This scene does not have dialogue and is only dance, but the backing track would be the Ol' Higue Poem mixed with 3 Canal's Blue Opera*

Ol' Higue
- *Mark McWatt*

You think I like all this stupidness
gallivanting all night without skin
burning myself out like cane-fire
To frighten the foolish?
And for what? A few drops of baby blood?
You think I wouldn't rather
take my blood seasoned in fat
black-pudding, like everyone else?
And don't even talk 'bout the pain of salt
And having to bend these old bones down
To count a thousand grains of rice!

If only babies didn't smell so nice!
And if I could only stop
Hearing the soft, soft call
Of that pure blood running in new veins,
Singing the sweet song of life
Tempting an old, dry-up woman who been
Holding her final note for years,
Afraid of the dying hum…

Then again, if I didn't fly and come
to that fresh pulse in the middle of the night,
how would you, mother,
name your ancient dread,
And who to blame
for the murder inside your head…?
Believe me –
As long as it have women giving birth
A poor ol' higue like me can never dead.

[At the end of the dance, a knock can be heard from the other side of the door. You can vaguely hear childlike voices chanting 'come outside']

Scene 3: (Douens)

Setting: *It is evening time. There is a picket fence running from both sides of the doorway from the Soucouyant scene that runs to the other side of the room to the room with Papa Bois (scene 4). The fence is like a pathway from the house to the outdoors (the woods).*

On either side of the fence in the 'yard', outdoor items are strewn (could range from gardening items to children's items). Some of the items should be big enough for the douens to crouch behind. Muffled recording of the interaction between granny and the audience should be played overhead.

Initial Stage Directions: *One dim spotlight appears on the side of one fence and Douen 1 can be spotted popping up as if spying on the audience. Another dim spotlight does the same thing on the other side on Douen 2. This happens 2-3 times while the recording is playing.*

Finally, the Douens appear and the lights brighten. Douens work as a call and response, gradually getting more and more excited in each line.

Technological Directions: *In scene 1, record the interaction between Granny and the audience. Edit this recording in, so that it is distorted and has an eerie feel. Playback the edited track overhead. This action can be completed in Sox. The names of the audience should stand out so that the Douens can extract their names for the piece.*

Douen 1: Hello
Douen 2: Come and Play
Douen 1: Come and Stay
Douen 2: Not too far away

Together: Come (Insert name 1) Come!
Together: Come (Insert name 2) Come!

Douen 1: Come (Insert name 3) Come!
Douen 2: Come (Insert name 4) Come!

Together (Overlapping): Come, Play, Stay, Away

Together (different names): Don't be scared (names)!

Douen 2: The forest is very pretty
Douen 1: Yes very very pretty

Douen 1: Hello

(both douens start laughing gradually building to hysteria)

Douen 2: Let's play a game!
Douen 1: Ring around a roses a pocket full of poses… ashes ashes
Douen 2 (stopping): No no no, they don't want to play that…
Douen 2: Trinidad numbers here we go:

(both douens start the clapping game individually)

Douen 1: Let's play police and thief. We'll be the police, you (pointing at audience) will be the thief.

(the douens start chasing each other and the audience)

Douen 1: Freeeze!!
I know the perfect game… let's play….. Red Over
Douen 2: Yes Yes Yes

(both douens start laughing gradually building to hysteria)

Douen 2: Red Over, red over send Douen 1 right over
Douen 1: Red Over, red over send Douen 2 right over

Together: Red Over, red over send [insert name] right over

Douen 1: Well go on… yes go go go

(Pointing in the direction of the next room)

Douen 2: Go Go Go… into the forest you go

Douen 1: All of you must go.. quick quick

(Douen 2 joins in)

Together: Go Go into the forest you go go
Go Go into the forest you go go

(Both douens laugh hysterically cornering the audience into the entrance to the next scene.

Scene 4: (Papa Bois)

Setting: *There are plants all around. The room is lined with mirrors to give an infinite feel. There is soft green light to give the feel of deep forest. You can hear sound playing like birds chirping and other sounds of the woods.*

The LED trees are a soft green. However, whenever an audience member gets close to the tree it changes color becoming more brownish/purple.

Initial Stage Directions: *Papa Bois can be seen lounging on a nearby tree seemingly asleep. Every now and then he would twitch or bleat like a goat. Suddenly, the sounds of gun shots can be heard… the trees begin the turn a deep purplish red.*

Papa Bois' eyes fling open, and he focuses on the audience. He walks slowly up to them and examines them. He walks past them and bangs his cane on the ground. The music begins and the dance begins.

Technological Directions: *Integrate LED trees among the real and fake trees. These trees are lined with Neopixel strips that are programmed to change color in line with the gun shots. (These lights should be prerecorded).*

There should also be an ultrasonic distance sensor hidden at the base of the trees that trigger a change in the lights depending on how far the audience is from the trees. This can be another set of neopixels or coded in tandem with the prerecorded lights.

**NB: This scene does not have dialogue and is only dance. The backing track would be Papa Bois by Asheba*

Scene 5: (Gallery)

This scene will be a self-exploration room. After 10 minutes the audience would be asked to exit.

At the exit there will be a QR code that will lead to a short form to get feedback on their experience and on which part of the performance resonated with them the most.

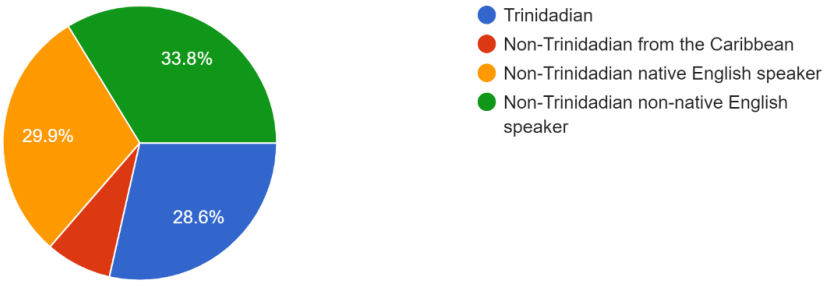
Part 3: Additional Files

Data:

The following data was taken from the form sent out to audience members after the two screenings.

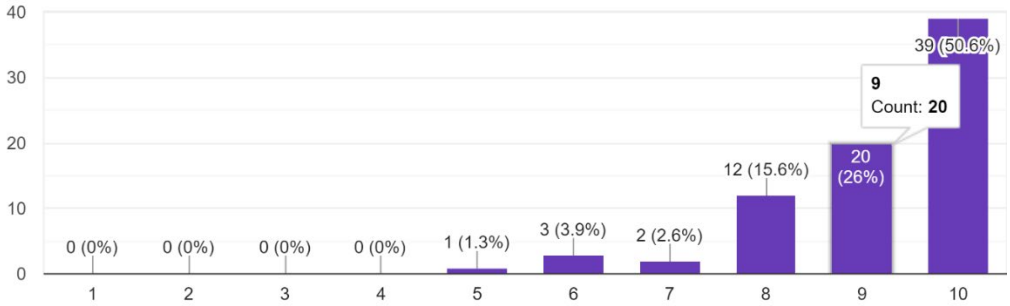
Which category most describes you?

77 responses



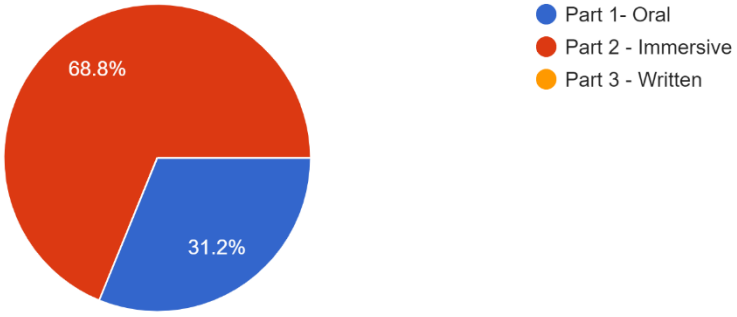
On a scale of 1 to 10 how well did you understand the piece?

77 responses



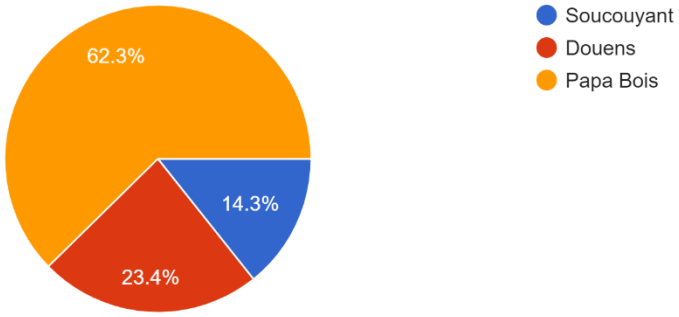
In your opinion, which medium was most impactful?

77 responses



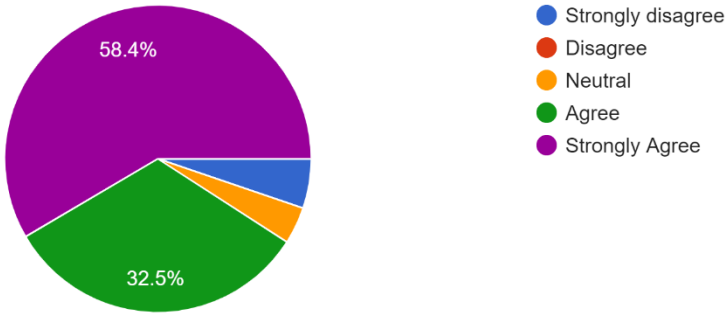
Of the immersive scenes, which scene was most impactful? (listed in order of appearance)

77 responses



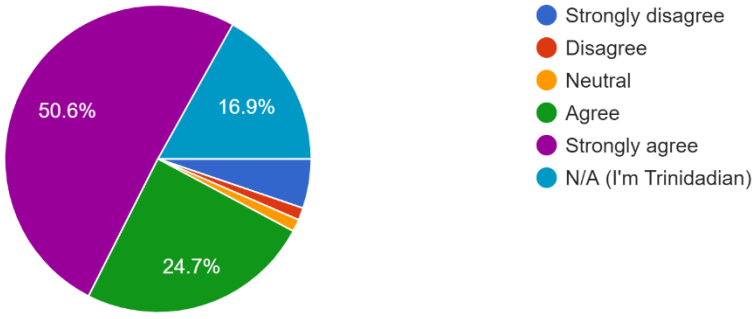
I would be interested in learning more about Trinidadian folklore

77 responses



I would be interested in learning more about my own country's folklore

77 responses



Code:

Code for Scene 2: Soucouyant Stories:

This scene uses Processing to generate a flame which tracks the position of the dancer

```
//Title: Soucouyant Final PDE
//Author: Gabrielle Branche
//Date: 12th APril, 2021
//Description: This code is used to allow a flame graphic to be mapped on to the dancer in Scene 2 of
Soucouyant Stories
//Code adapted from Daniel Shiffman's average point tracking script
// https://github.com/shiffman/OpenKinect-for-Processing
// http://shiffman.net/p5/kinect/

//import libraries
import org.openkinect.freenect.*;
import org.openkinect.processing.*;
import codeanticode.syphon.*;

// The Kinect tracking happens in another class
KinectTracker tracker;
Kinect kinect;

// Syphon used to link Processing Script to Madmapper:
SyphonServer server;

// Variable used to generate the flame graphic
float Fx;
float Fy;
float Fnx;
float Fny;
float Fradian;
float scale = 0.03;
PVector offset1, offset2;
```

```
// Variables used to make flame buffer
color c1, c2, c3, c4, c5;
int index1, index2, index3, index4;

//declaring buffers and graphics
PGraphics buffer1;
PGraphics buffer2;
PGraphics cooling;
PGraphics canvas;

//using pixel count to determine depth
float z;

// when determining the start of the cooling effect
float ystart = 0.0;

void setup() {
  size(640, 520, P3D);
  frameRate(60);
  canvas = createGraphics(width, height, P3D);                    // Graphic used to create a blank
Canvas needed for Madmapper when flame is not generated

  buffer1 = createGraphics(width, height, P3D);
  buffer2 = createGraphics(width, height, P3D);                   // Create Flame Buffer and Cooling
Graphics
  cooling = createGraphics(width, height, P3D);

  offset1 = new PVector(random(100000), random(100000));          // Contols the extent to watch the
flame varies
  offset2 = new PVector(random(10000), random(10000));

  kinect = new Kinect(this);                                      // Initiates Kinect
  tracker = new KinectTracker();

  server = new SyphonServer(this, "Processing Syphon");           // Initiates Syphon
}


void createBuffer() {
```

```
  for (int x = 0; x< width; x++) {
    for (int y = 1; y < height-1; y++) {

      int index0 = (x) + (y) * width;
      int index1 = (x+1) + (y) * width;
      int index2 = (x-1) + (y) * width;                                  // takes a given pixel and saves the
neighbouring pixels in a respective index
      int index3 = (x) + (y+1) * width;
      int index4 = (x) + (y-1) * width;

      c1 = buffer1.pixels[index1];
      c2 = buffer1.pixels[index2];
      c3 = buffer1.pixels[index3];                                       // Adds the buffer color values to the
neighbouring pixels stored in the index variables
      c4 = buffer1.pixels[index4];
      c5 = cooling.pixels[index0];

      // changes the brightenss of the color of the neighbouring pixels to give a fading effect
      float newC = brightness(c1) + brightness(c2) + brightness(c3) + brightness(c4);
      newC = newC - brightness(c5);

      buffer2.pixels[index4] = color(newC*0.25, 0, 0);                   // creates a new buffer based on the
values stored in newC
    }
  }
}


//flame that follows dancer
void followFire() {

  PVector v1 = tracker.getPos();                                         // Gets the values of the average point
tracking indentified by the Kinect

  buffer1. beginDraw();                                                  // Begin drawing PGraphics
  buffer1.noStroke();


  push();
```

```
  float yAxis = v1.y+height/8;                                    // shifts y value of the average point
down to accomodate for the limitations of the projection on the walls
  buffer1.translate(v1.x, yAxis );                                // translates the flame grapgic
according to the x value of the kinect tracker and yAxis


  float scaleRadious = map(z, 1000, 100000, 20, 5);               // scales the flame according to how
close or far the dancer is from the kinect; gives the effect of the flame growing more powerful closer to
the tree


  //draws the flame and randomises it so it looks animated
  for (float radious = scaleRadious; radious > 0; radious -= 1) {   // determines the size of the flame
using scaleRadious and moves from the furthest point from the center inward
    buffer1.fill(255, 0, 0);                                      // makes the flame red
    buffer1.beginShape();                                         // begin drawing PGraphic
    for (float angle = 0; angle < 360; angle += 1) {              // makes the flame a circular effect
      Fradian = radians(angle);                                   // converts the angle to radians
      Fx = radious * cos(Fradian);                                // calculates the x position of the
circle
      Fy = radious * sin(Fradian);                                // calculates the y position of the
circle

      // adds variation to the x and y components of the flame to make it look more animated; x value is
smaller so that the flame varies more vertically than horizontally
      Fnx = Fx + map(noise(Fx * scale + offset1.x, Fy * scale + offset1.y, frameCount * 0.050), 0, 1, -250,
250);
      Fny = Fy + map(noise(Fx * scale + offset2.x, Fy * scale + offset2.y, frameCount * 0.050), 0, 1, -500,
500);

      buffer1.vertex(Fnx, Fny);                                   // adds the buffer1 PGraphic to each
point in the flame
    }
    buffer1.endShape(CLOSE);
  }
  pop();
  buffer1.endDraw();
}
```

```
//cooling effect
void cool() {
  cooling.beginDraw();                                          // Function needed to initate
PGraphics
  cooling.loadPixels();                                         // Function needed to initiate drawing
pixels for cooling

  float xoff = 0.0; // Start xoff at 0                          // Initiates x position of cooling
  float increment = 0.05;                                       // Determines how quickly cooling will
take place

  // For every x,y coordinate in a 2D space, calculate a noise value and produce a brightness value
  for (int x = 0; x < width; x++) {
    xoff += increment;                                          // Increment xoff
    float yoff = ystart;                                        // For every xoff, start yoff at 0
    for (int y = 0; y < height; y++) {
      yoff += increment;                                        // Increment yoff

      float bright = noise(xoff, yoff) * 80;                    // Calculate noise and scale by value
that corresponds with desired rate

      cooling.pixels[x+y*width] = color(bright);                // Set each pixel onscreen to a
grayscale value
    }
  }

  cooling.updatePixels();
  ystart += increment;                                          // Increment y

  cooling.endDraw();                                            // End PGraphics
}


void draw() {
  background(0);
  //println(frameRate);                                         // used for debugging
  //println(z);

  tracker.track();                                              // Run the tracking analysis
```

```
  //tracker.display();                                          //Show the image; used for debugging

  // if dancer is in view of the kinect
  if (z>=500) {

    cool();
    followFire();

    buffer2.beginDraw();
    buffer1.loadPixels();                                      // Load and Draw buffers
    buffer2.loadPixels();

    createBuffer();                                            // Creating buffer

    buffer2.updatePixels();                                    // End PGraphic
    buffer2.endDraw();


    PGraphics temp = buffer1;
    buffer1 = buffer2;                                         // Swap PGraphics
    buffer2 = temp;

    image(buffer2, 0, 0);                                      // Draw Image
    server.sendImage(buffer1);                                 // Send Image to Madmapper via syphon
  } else {

    //send black canvas if not dancer detected
    canvas.beginDraw();
    canvas.fill(0);
    canvas.ellipse(width/2, height/2, 100, 100);               // Ellipse drawn to have something in
canvas
    canvas.endDraw();

    server.sendImage(canvas);                                  // Send Image to Madmapper via syphon
  }
}
```

Code for the Kinect Class

```
//Title: Soucouyant Final PDE Kinect Tracker
//Author: Gabrielle Branche
//Date: 12th APril, 2021
//Description: This code is used to allow a flame graphic to be mapped on to the dancer in Scene 2 of
Soucouyant Stories
            // Code adapted from Daniel Shiffman's average point tracking script
            // https://github.com/shiffman/OpenKinect-for-Processing
            // http://shiffman.net/p5/kinect/


class KinectTracker {

  // Depth threshold
  int Maxthreshold = 1045; // maximum threshold which the kinect can read without picking up the walls for
projection
  int Minthreshold = 100;  // minimum threshold to give cinematographer space to move infront of dancer

  // Raw location
  PVector loc;

  // Interpolated location
  PVector lerpedLoc;

  // Depth data
  int[] depth;

  // What we'll show the user
  PImage display;

  KinectTracker() {
    // This is an awkard use of a global variable here
    // But doing it this way for simplicity
    kinect.initDepth();
    kinect.enableMirror(true);
    // Make a blank image
    display = createImage(kinect.width, kinect.height, RGB);
    // Set up the vectors
```

```
    loc = new PVector(0, 0);
    lerpedLoc = new PVector(0, 0);
  }

  void track() {
    // Get the raw depth as array of integers
    depth = kinect.getRawDepth();

    // Being overly cautious here
    if (depth == null) return;

    // values initialised to calculate the average position of pixels
    float sumX = 0;
    float sumY = 0;
    float count = 0;

    for (int x = 100; x < kinect.width; x++) {
      for (int y = 10; y < kinect.height-50; y++) {

        int offset =  x + y*kinect.width;
        // Grabbing the raw depth
        int rawDepth = depth[offset];

        // Testing against threshold
        if (rawDepth < Maxthreshold && rawDepth > Minthreshold) {
          sumX += x;
          sumY += y;              // Counts up the values of x and y postions in which something is
detected
          count++;                // Counts up the number of pixels detected with an image
          z= count;               // Assigns the number of pixels detected to z to be used in manipulating
the size of the flame based on the distance of the dancer from the kinect
        }
      }
    }
    // As long as we found something
    if (count != 0) {
      loc = new PVector(sumX/count, sumY/count);
    }

    // Interpolating the location, doing it arbitrarily for now
```

```
    lerpedLoc.x = PApplet.lerp(lerpedLoc.x, loc.x, 0.3f);
    lerpedLoc.y = PApplet.lerp(lerpedLoc.y, loc.y, 0.3f);
  }

  PVector getLerpedPos() {
    return lerpedLoc;
  }

  PVector getPos() {
    return loc;
  }

  void display() {
    PImage img = kinect.getDepthImage();

    // Being overly cautious here
    if (depth == null || img == null) return;

    // Going to rewrite the depth image to show which pixels are in threshold
    // A lot of this is redundant, but this is just for demonstration purposes
    display.loadPixels();
    for (int x = 0; x < kinect.width; x++) {
      for (int y = 10; y < kinect.height-50; y++) {

        int offset = x + y * kinect.width;
        // Raw depth
        int rawDepth = depth[offset];
        int pix = x + y * display.width;
        //float b = brightness(display.pixels[pix]);
        if (rawDepth < Maxthreshold && rawDepth > Minthreshold) {
          // A red color instead
          display.pixels[pix] = color(150, 50, 50);
        } else {
          display.pixels[pix] = img.pixels[offset];
        }
      }
    }
    display.updatePixels();

    // Draw the image
```

```
    image(display, 0, 0);
  }

  int getThreshold() {
    return Maxthreshold;
  }

  void setThreshold(int t) {
    Maxthreshold =  t;
  }
}
```

Code for Scene 3: Douens

This Scene uses Sox to edit audio from scene 1 and play back in real-time

```
 nyuad@C3-153-IMAC-05 DouenAudio % rec Granny.wav trim 0:0 4:00; \
> sox -m Granny.wav "|sox Granny.wav -p reverse" "|sox Granny.wav -p reverse reverb -w
reverse" "|sox Granny.wav -p contrast 75" GrannyEdit.wav; \
> sox -m GrannyEdit.wav DouenEdit.wav DouenFinal.wav \
> play DouenFinal.wav repeat 2 \
```

Code for Scene 4: Papa Bois

This scene uses Arduino to manipulate the trees and make them responsive in a physical space

```
//Title: Papa Bois Final INO
//Author: Gabrielle Branche
//Date: 12th April, 2021
//Description: This code is used to control the LED trees in the Papa Bois scene to make them responsive to
movement in the space and overhead gunshots
            // Code adapted from Adafuit Neopixel, strandtest example
```

```
// include libraries
#include <Adafruit_NeoPixel.h>
#ifdef __AVR__
#include <avr/power.h>                                          // Required for 16 MHz Adafruit
Trinket
#endif

// Which pin on the Arduino is connected to the NeoPixels
#define LED_PIN    6

// How many NeoPixels are attached to the Arduino
#define LED_COUNT 295                                           // for larger trees 550

// Which pin on the Arduino is connected to the button
#define BUTTON_PIN 9

// Declare our NeoPixel strip object:
Adafruit_NeoPixel strip(LED_COUNT, LED_PIN, NEO_GRB + NEO_KHZ800);
// Argument 1 = Number of pixels in NeoPixel strip
// Argument 2 = Arduino pin number (most are valid)
// Argument 3 = Pixel type flags, add together as needed:
//   NEO_KHZ800  800 KHz bitstream (most NeoPixel products w/WS2812 LEDs)
//   NEO_KHZ400  400 KHz (classic 'v1' (not v2) FLORA pixels, WS2811 drivers)
//   NEO_GRB     Pixels are wired for GRB bitstream (most NeoPixel products)
//   NEO_RGB     Pixels are wired for RGB bitstream (v1 FLORA pixels, not v2)
//   NEO_RGBW    Pixels are wired for RGBW bitstream (NeoPixel RGBW products)


//Values used to test, without loosing the calibrated values
//unsigned long gunshotTime[] = {51800, 69100, 112000, 275000};
//unsigned long gunshotEnd[] = {55800, 73000, 116000};

//Papa Bois Values: values needed to be calibrated taking into account that the pixels take roughly 5 secs
to change
unsigned long gunshotTime[] = {51300, 64300, 95500, 150000};
unsigned long gunshotEnd[] = {54000, 67500, 98200};

//RGB Values of the NeoPixels
int Rcolor, Gcolor, Bcolor, treeBright;
```

```
int UltraRcolor, UltraGcolor, UltraBcolor, UltraTreeBright;

// Variables will change:
boolean gunRing = false;                                    // Boolean used to determine whether to
prioritise sound values or ultrasonic values

const int pingPin = 3;                                      // Trigger Pin of Ultrasonic Sensor
const int echoPin = 2;                                      // Echo Pin of Ultrasonic Sensor

unsigned long UltraPreviousMillis = 0;                      // Used to make a delay in reading values in
the ultrasonic sensor without using delay function
const long UltraInterval = 100;




void setup() {

  //  Serial.begin(9600);

  //initialize RGB values and brightness of the neopixel strips

  UltraRcolor = 0;
  UltraGcolor = 150;
  UltraBcolor = 0;
  UltraTreeBright = 150;

#if defined(__AVR_ATtiny85__) && (F_CPU == 16000000)
  clock_prescale_set(clock_div_1);
#endif
  // END of Trinket-specific code.

  strip.begin();                  // INITIALIZE NeoPixel strip object (REQUIRED)

  // initiating with blue and giving a delay so as to set up all the trees before the music starts
  for (int i = 0; i < strip.numPixels(); i += 2) {
    strip.setPixelColor(i, strip.Color(0, 0, 150));
  }
  strip.begin();                  // INITIALIZE NeoPixel strip object (REQUIRED)
  strip.show();
```

```
  //  Turn OFF all pixels ASAP
  strip.setBrightness(treeBright); // Set BRIGHTNESS to about 1/5 (max = 255)

  pinMode(echoPin, INPUT);         // Initialising pin for reading ultrasonic sensor values

  delay(10000);                    // Delay inserted to set up trees before starting piece officially
}

void loop() {

  int buttonState = digitalRead(BUTTON_PIN);                          // Determine whether the button is
being pressed or not
  CheckTime(buttonState);                                             // Function which takes button state
value to be used for conditionals

  ultraSonicMeasure();                                                // Function which determines how far
an object is from the tree
  DistPix(strip.Color(UltraRcolor,   UltraGcolor,   UltraBcolor));    // Function which turns on and off
the neopixel strips
}


//Checks to see if button is pressed and change color when the gun shot rings (button press dependent on
music)
void CheckTime(int buttonState) {
  int i = 0;
  if (buttonState == LOW) {
    gunRing = true;                  // pauses the ultrasonic reader as the button has priority
    UltraRcolor = 255;
    UltraGcolor = 15;
    UltraBcolor = 0;
    treeBright = 50 * (i + 2);
  } else if (buttonState == HIGH) {
    gunRing = false;                 // used to determine whether ultrasonic sensor should be read or not
  }
}


//Measures how far someone is from the tree
```

```
void ultraSonicMeasure() {

  unsigned long UltraCurrentMillis = millis();

  // conditional used to create a delay without using the delay function
  if (UltraCurrentMillis - UltraPreviousMillis >= UltraInterval) {
    UltraPreviousMillis = UltraCurrentMillis;

    //Code to make ultrasonic sensor determine how far an object is
    long duration, inches, cm;
    pinMode(pingPin, OUTPUT);
    digitalWrite(pingPin, LOW);
    delayMicroseconds(2);
    digitalWrite(pingPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(pingPin, LOW);

    // Code which converts the values of the ultrasonic sensor to cm and inches
    duration = pulseIn(echoPin, HIGH);
    inches = microsecondsToInches(duration);
    cm = microsecondsToCentimeters(duration);

    //    Serial.println(cm);           // used for debugging

    // if an ibject gets close to the tree, the neopixels change color proportionally to the proximity of
the object
    if (cm <= 100 && gunRing == false) {
      // pixels.Color() takes RGB values, from 0,0,0 up to 255,255,255
      UltraRcolor = map(cm, 50, 5, 200, 255);
      UltraGcolor = map(cm, 50, 5, 50, 0);
    }

    // if no object within 'threat' range, the Neopixels return ot green
    else  if (cm > 100 && gunRing == false) {
      UltraRcolor = 0;
      UltraGcolor = 150;
      UltraBcolor = 0;
      treeBright = 50;
    }
  }
```

```
}


//UPDATED: Shows all the pixels:
//Displays the odd pixels based on distance
void DistPix(uint32_t color) {
  for (int i = 0; i < strip.numPixels(); i ++) {  // For each pixel in strip...
    strip.setPixelColor(i, color);                //  Set pixel's color (in RAM)
  }
  strip.show();                                   //  Update strip to match
}


//turns microseconds to inches and centimeters

long microsecondsToInches(long microseconds) {
  return microseconds / 74 / 2;
}

long microsecondsToCentimeters(long microseconds) {
  return microseconds / 29 / 2;
}
```

Logistics:

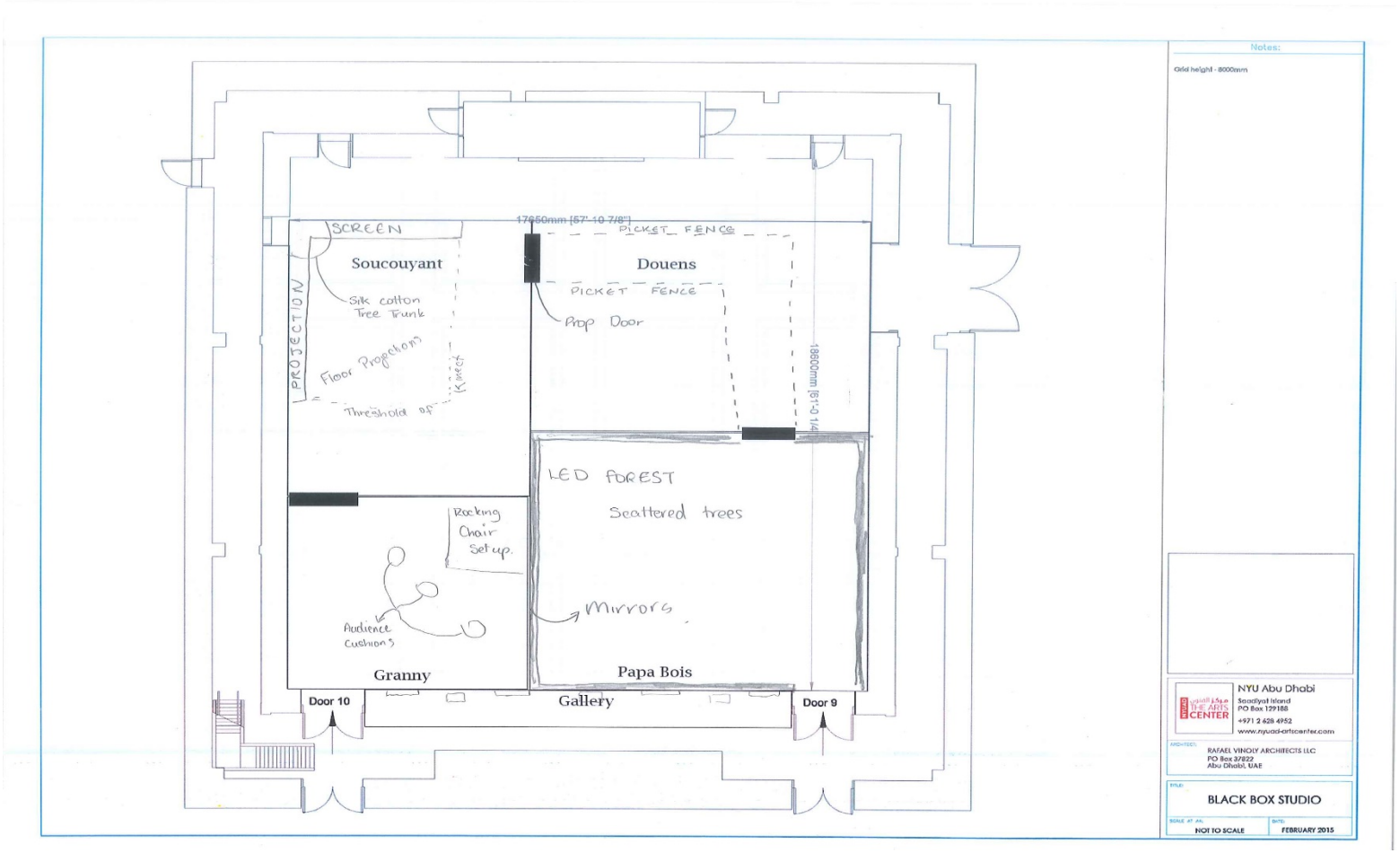
Budget:

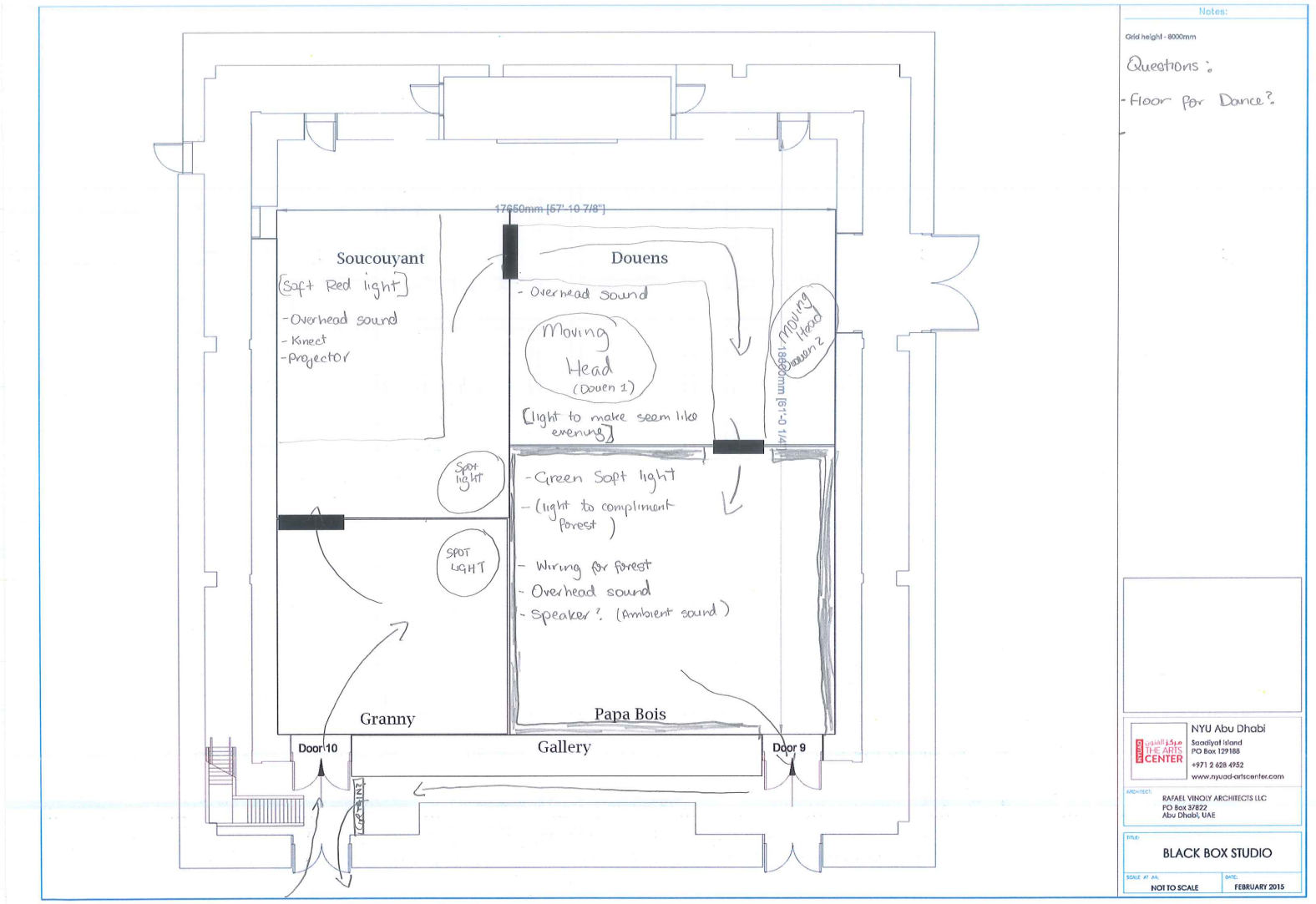
Item	Quantity	Price (AED)	Total	Link	Additional Info	Justification of Expense
Technology						
Projector*	3	1254	3762	EPSON Projector	Can be borrowed from the IM lab	For 3 of my scenes I plan to project graphics that track the movement of the characters and or provide background imagery
Xbox Kinect*	2	277	554	Kinect Sensor	Can be borrowed from the IM lab	To track the movement of two of the dancers I will need a Kinect
Mac Laptop*	2	3510	7020	MacBook Air	Can be borrowed from the IM lab	The Kinect works better with Mac rather than windows so the laptops will be needed to run the programs
Neopixels LED Strips	2	108	216	Dream Color	Can be borrowed from the IM lab	To build the LED forest for one of the scenes I will need Neo-pixel Strips
Ultrasonic Distance Measuring Sensor	2	15	30	Sensor	Can be borrowed from the IM lab	The LED forest is manipulated by how close the audience comes to it and therefore should be detected using IR sensors
Microphone*	1	23	23	Mic	Can be borrowed from the IM lab	In one of the scenes the voices of the audience are recorded and played back to them, as such a microphone is needed to get the voices clearly
Arduino Uno	5	60	300	Arduino	Can be borrowed from the IM lab	Needed for all the projects to make them run
Consumable Items*			150		Can be borrowed from the IM lab	Items such as wires, buttons, breadboards, motor shields etc. that will be needed for the project
Additional Technology			200			This project is still in its formative stages and is also at the mercy of Coronavirus, as such this is a buffer cost for any additional technological expenses that may arise
Props						

ors	10	25	250	Wall Mirrors		To give the illusion of larger space than there is, mirrors will be used especially in the forest and river scenes
Partitions	5	81	405	Curtains		Partitions will be used to separate the studio into smaller rooms for each scene
Wood			200		Can be used from the scene shop	In order to build the LED forest, the scene shop will be needed to create the skeleton of the trees
Props			100		Some of the prop needs may be subsidized by the Costume Shop	Some of the scenes require props to enhance the environments where technology is not enough, eg using real plants in between the LED trees to give more of an idea of a forest
Costumes	5	100	500		Some of the costumes may be subsidized by the Costume Shop	Costumes will be needed for each dancer to look the role of the respective mythological characters
Additional Costume and Prop Expenses			200			This project is still in its formative stages and is also at the mercy of Coronavirus, as such this is a buffer cost for any additional technological expenses that may arise
Other			0			
Use of Studio 045	0	0	0			This is an interactive performance and as such an appropriate space is needed. Using Studio 45 (of if fortunate the Black Box, will limit the need for light and sound as it already is part of the room. Moreover, it will serve as a great space to transform into the worlds of these mythological characters
Audio CD of Folklore music	1	70	70	Go Itsy		Some of the songs on this album will be used as backing tracks for the dancers. This is an old album, so it is very hard to find online. Additionally, buying the album will ensure that the music is of the highest quality
Subtotal			**13980**			
Lab Subsidies			**12055**			
Total			**1925**			

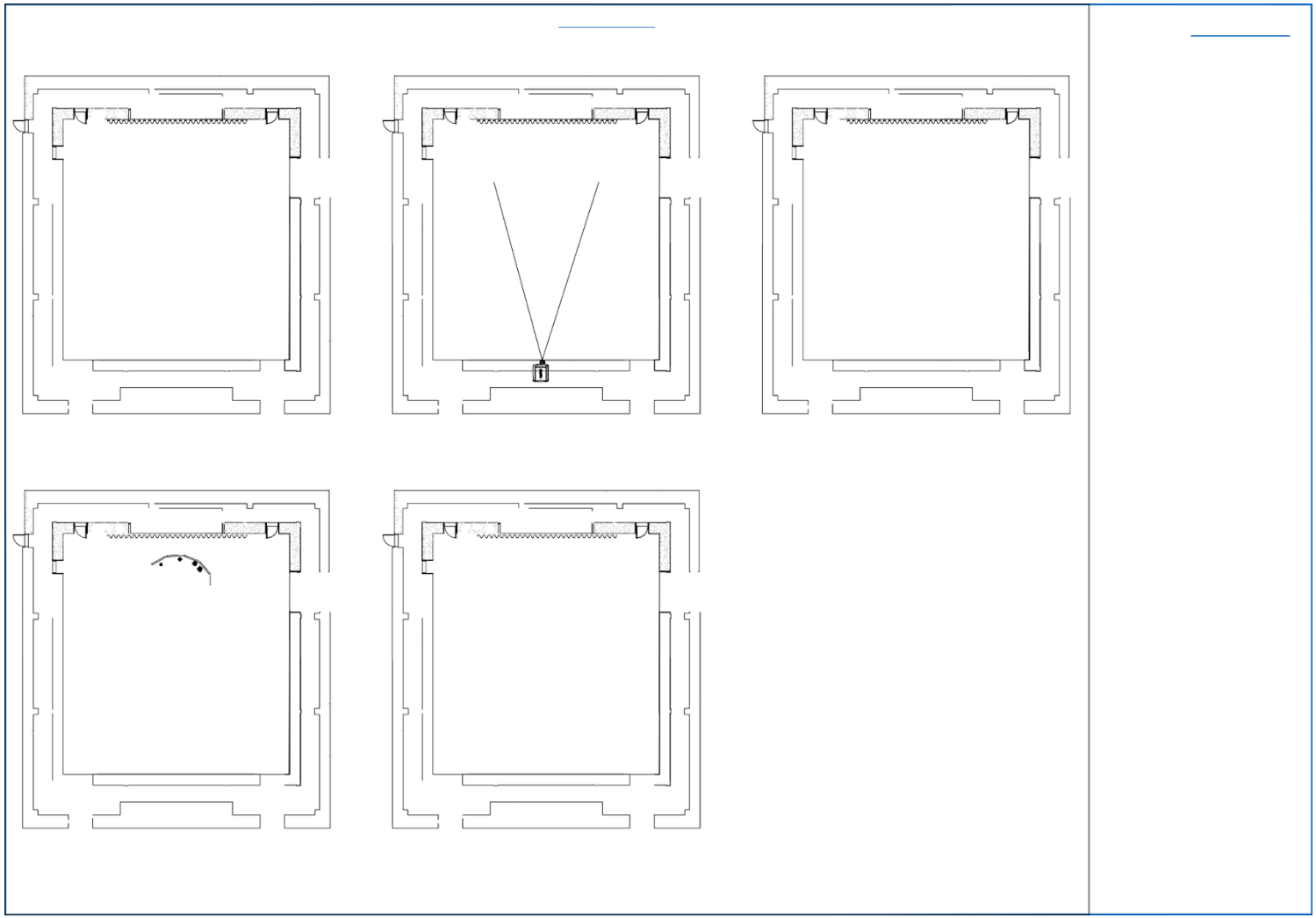
Staging:

The following images show the initial Staging for a full walk through:





The following image shows the staging for the Scene-by-Scene filming which was finalized:



Logistics Sheet

The Following is the Logistics sheet which was used to organize rehearsals and filming.

Coordinating Team:

- Capstone Student: Gabrielle Branche (+971567855163 | +18684727523)
- Capstone Advisor: Heather Dewey-Hagborg
- Director of Production: Christopher Pye
- Assistant Director of Academic Space Operations: Tucker Russel

Crew:

- Creative Director: Gabrielle Branche
- Cinematographer: Matthew Tan
- Technical Assistant: Michael Leo Kokkat

Tech Team

- Organized by the Arts Center
    - Contact Person – Christopher Pye

Cast (in order of appearance)

- Netanya Keil
- Khushi Gupta
- Shalini Corea
- Salma Abdelaziz
- Yerkebulan Imanbayev

Capstone Panelist

- Heather Dewey-Hagborg
- Michael Shiloh
- Joanna Seattle

Rehearsal Schedule:

Rehearsals will take place in C3-006W.

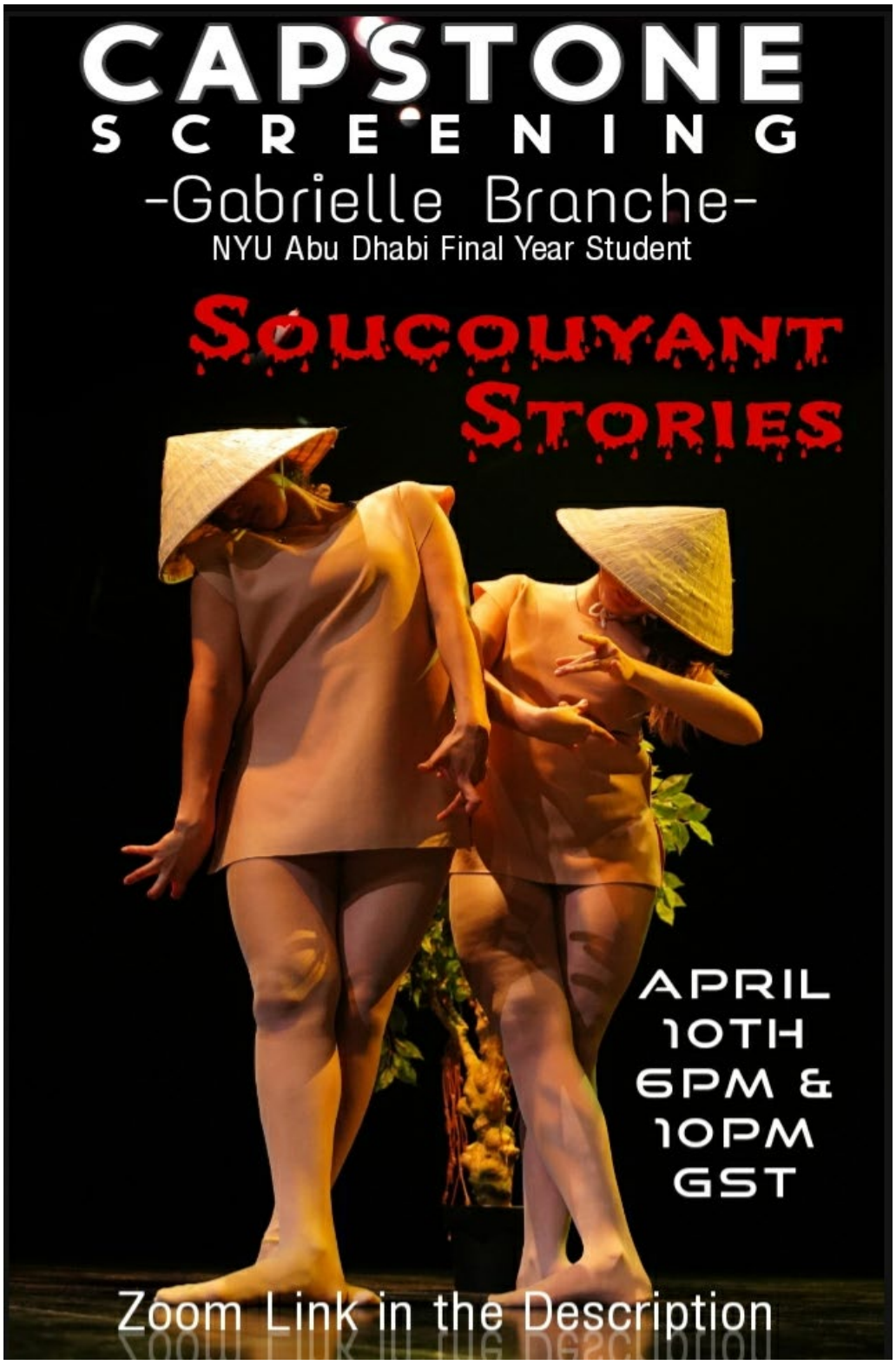
Day	Time	Performers	NETID	Training Completed
Sunday	1pm-2pm	Khushi Gupta	kg2524	Yes
Tuesday	1:30-2:30	Hayat Jan Chavez*	hjc481	Yes
Wednesday	3pm-4pm	Shalini Corea Salma Abdelaziz	stc382 sa5363	Yes
Thursday	6pm-7pm	Pamela Martinez*	pam552	Yes
Friday	4pm-5pm	Netanya Keil	ndk249	Yes
Saturday	3pm-4pm	Yerkebulan Imanbayev	yi2027	Yes

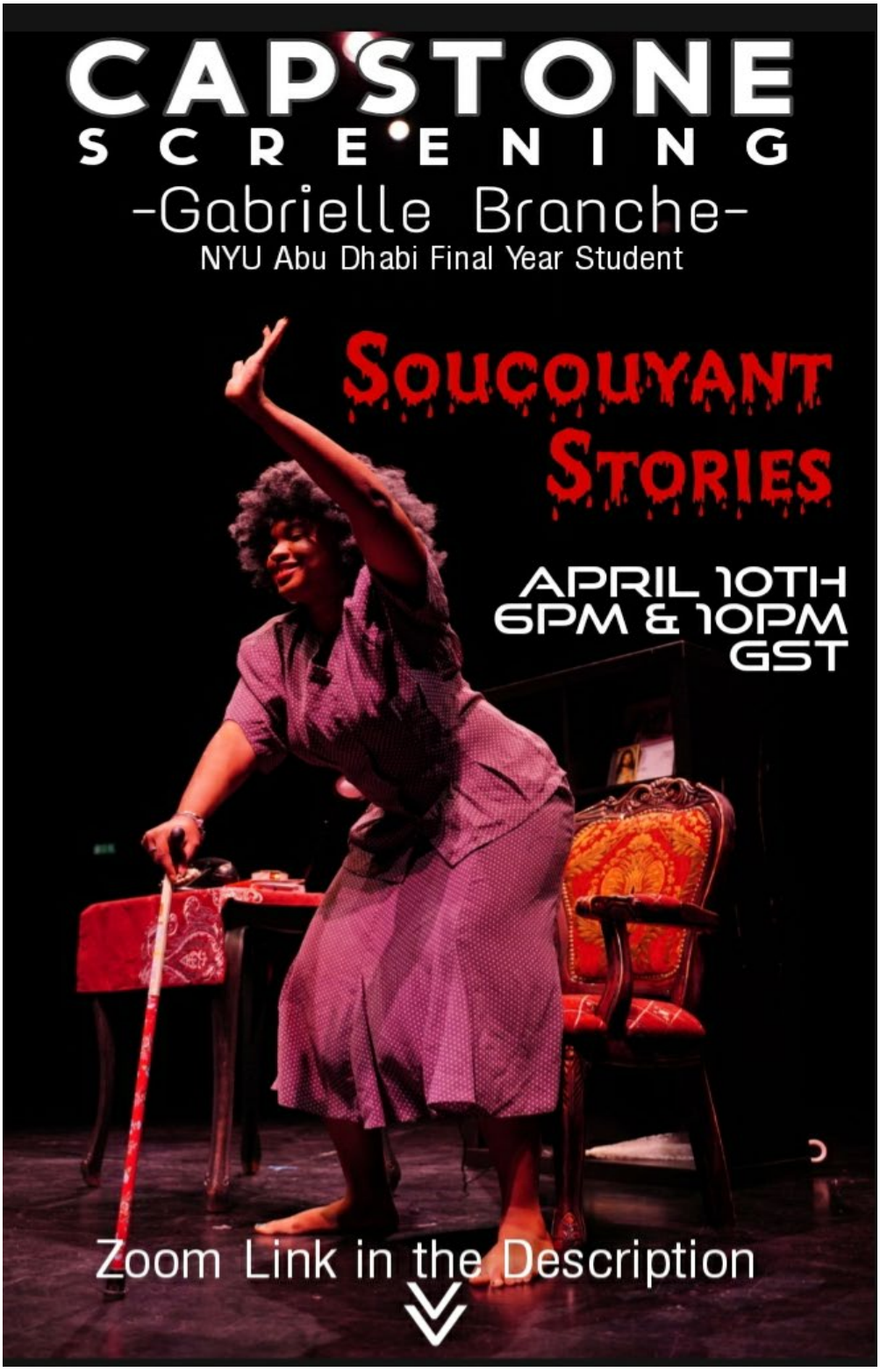
Call Sheet:

Date	Time	Action	Persons Involved
Sunday 28th March	2:00pm – 6:00pm	Install Props	
	7:00pm – 9:00pm	Camera and Audio Sound Check Install Scene 5 (gallery)	
	9:00pm – 11:00pm	Camera and Audio Sound Check Record Scene 5 (gallery)	Matthew Tan
Monday 29th March	2:00pm – 6:00pm	Set up Scene 1	
	7:00pm – 9:00pm	Rehearsal of Scene 1	Netanya Keil Michael Kokkat Matthew Tan
	9:00pm – 11:00pm	Record of Scene 1	
Tuesday 30th March	2:00pm – 6:00pm	Set up Scene 2	
	7:00pm – 9:00pm	Rehearsal of Scene 2	Khushi Gupta Michael Kokkat Matthew Tan
	9:00pm – 11:00pm	Record of Scene 2	
Wednesday 31st March	2:00pm – 6:00pm	Set up Scene 3	
	7:00pm – 9:00pm	Rehearsal of Scene 3	Shalini Corea Salma Abdelaziz Michael Kokkat Matthew Tan
	9:00pm – 11:00pm	Record of Scene 3	
Thursday 1st April	2:00pm – 6:00pm	Set up Scene 4	
	7:00pm – 9:00pm	Rehearsal of Scene 4	Yerkebulan Imanbayev Michael Kokkat Matthew Tan
	9:00pm – 11:00pm	Record of Scene 4	

**In all time slots, Gabrielle Branche and the Tech team would be present.*

Posters:


CAPSTONE
SCREENING
-Gabrielle Branche-
NYU Abu Dhabi Final Year Student
SOUCOUYANT STORIES
APRIL
10TH
6PM &
10PM
GST
Zoom Link in the Description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SOUCOUYANT STORIES
APRIL 10TH
6PM & 10PM
GST
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Documentation:

GitHub

For further documentation please visit: https://github.com/gabibranche/capstone/tree/master/blog

This GitHub repository contains Periodic blog posts following the process of Soucouyant Stories for the last 6 months.

Flipsnack

For access to the Screening Programme visit: https://www.flipsnack.com/soucouyantstories/soucouyant-stories.html

This is a digital programme that was shared at the screening before the start of the performance.