Trevor O'Brien September 30, 2008
cs137
HW 1.C.

1. What is the subject of your proposed virtual world?

The evolution from aquatic to terrestrial locomotion.

2. What mood, feelings, and/or emotions will you try to evoke in a viewer experiencing this world?

I'm not sure I considered feelings and emotions, but I suppose I'm trying to evoke intrigue, along with moments of clarity.

3. How can visual form be given to abstract forces or energy principles?

Symbolic representations like arrows, vectors, and other icons or glyphs can serve this purpose.

4. What are some basic natural forms, and how does the character of their form relate to natural forces?

I think some of the most straightforward examples were given in class, like whirlpools and tornados, where the turbulence of a flowing medium reaches a point that it spawns singularities, or vortices. While a vortex is a mathematical construct, the natural form of whirlpools and tornados -- a visual display of twisted turbulence, spiraling in or out -- is the quintessential visualization of vorticity.

5. What is the role for movement in your concept design?

I didn't actually create any moving bits in my visualization, but I did create separate instances of each type of creature to convey movement over time. It's mainly important to consider how far each creature traveled relative to the others.

6. What are some examples of linked forms in nature: forms from different realms (atmospheric, liquid, plant, organic, earth, energy) which have analogous character?

Again, we saw some of the best examples in class. The magnetic fields present in the construction of a solar flare are very similar to the types of things we see on the atomic level in quantum physics. Also, I found the example linking the vascular infrastructure of a human to the waterways in a leaf to be a very compelling example of linked phenomena.

7. If we are to convey the sensation of flying or swimming, how can the arrangement of forms in relation to the viewer's point of view, create a dynamic sense of place, an invitation to explore, a quality of engagement, comfort, awe, or another emotional or physical quality.

    Trying to place images or 3D structures along a predefined path in space that you'd like them to travel along can create a flying or swimming sensation. In addition, placing atmospheric textures around the structures can also provide an immersive effect, to distinguish between flying or swimming, for instance.

8. Does your world fit within the "real" space of the Cave (8x8x8 ft) or does it extend beyond the walls?

    It fits within the real space.

9. What did you choose to depict with 2D imagery? Why?

    I provided a 2D overlay of the three distinct evolutionary steps I had created. At a high level, I found this was useful in conveying the content of the visualization very quickly to the user. It also served as a navigational guide for users who may have become lost in some level of the visualization.

10. What did you choose to depict with 3D painted form? Why?

    I created all of the amphibious creatures, their terrain, and the flows around them in 3D. I found that the natural gestures made available in cavepainting produced very natural looking forms and depictions of forces.

11. Did you have any trouble logging in?

    Yes, it seems my password wasn't set up correctly.

12. Did you have any trouble running CavePainting?

    Yes, but this was resolved once my password was reset.

13. Did you learn how to change colors? Change brush stroke types?

    Yes.

14. What discussion question do you have from the Cave paper?

    It seems like the "not museum-ready" comment is a bit outdated. Have any newer caves been installed in a more widely used educational forum like a museum?

15. In this assignment, what worked, what didn't work, and how would you change it? (briefly)

With limited time in the cave, I spent a good amount of time creating slides and textures outside of the cave. Then, when I was able to get in there, I could create something appealing very quickly. Some of the textures didn't appear as I would have liked, but moving forward, knowing what I know now about working in the cave, I'll try to prepare as much as possible before getting in the cave to try to be as efficient as possible with the time I have.