Visualizing/Peopling the Past

Final Project Ideas

Dr. Erickson and Dr. Badler
Fall 2009
Maiko Kawana

Though I wish I could contribute to the group project as a responsible member, I have no prior knowledge or technical skill that I hope I wouldn’t disrupt the progress of the project. I am interested in visual art just as my hobby – I have never taken any studio art class – and especially in expressing little simple pleasure in everyday life of the people in a less dramatic manner. I am interested in trivial things – more of folklore elements in archaeology – and might be able to focus on the project from slightly different perspective from other members, who seemed to me to be rather interested in Ceque system in a grander scale. However, I do not want to fall into the mistake of primitivism, that there were a lost peace and happiness in simpler life, and my agenda is to depict the past as objective as possible. Although I am still not sure if I could do that successfully, but am currently experimenting on making wooden and felt dolls; I wish I could paste that image as a texture on moving figures made by computer programs. Just like CG creators of Beowulf wanted to give the real-life actress a CG texture, I want to give a hand-made texture on computer-made human figure.
Kelly Soudachanh

Interests in Contribution

In contributing to the project, my skills as a cultural anthropology student would best fit in conducting research. At the moment, I am most interested in the relationship between the people and the geological features of Cuzco. However, I am open to doing research on other subjects as well.

I do want to participate in the technological aspects of the project – whether that means assisting someone with more background in programs or other smaller roles, as it would be beneficial to learn from my peers.

Ideas

Layers –

Thinking along how GIS allows users to layer files on top of each other, it would be interesting to have a section on the website for visitors to superimpose different parts of Cuzco. The layers could be divided by Ceque lines, huacas, geographical features (perhaps even if they are described as a huaca), cosmology, and district zones. This adds an interactive feature for the visitors, in addition to providing an aesthetic value.

Time shift -

As the idea of adding a time shift to Cuzco was mentioned in class, layers serves as a second option if the technological processes are too difficult.

The time shifts could be of different aspects and they can also incorporate the flyover idea. Specifically in using the time shift, visitors can flyover “changes”.

Some time shift ideas as listed:

1. Before/during/after rituals – As rituals are unifying events for the Incas, it would be interesting to see the preparation before, the ritual, and then what is left over. This serves the purpose of peopling the past as it demonstrates a large and symbolic event that many people attend.
2. The movement of the sun or the moon over a certain time period from within the city. Incorporating the pillars or another aspect of the horizon into this time shift constructs the context through which the people measured and observed time. Several versions of this can be used – ranging from a day, week, month, etc. If done over longer time periods, it would be insightful to have some indicative of the temperature or seasonal change to assess the sun and/or moon patterns.
3. Time shift of the Incas during the height of their power to present day. Including a separate section of the Spanish conquest demonstrates shifts in power and we can address cultural hegemony through this. This also emphasizes change and modernization.

4. Although this may only relate to present day circumstances, a time shift of the market day shows relationships between economic conditions and small-scale migrations. Through this time shift, we can talk about geologic conditions, farming, and community relationships.
Collaboration with the entire class would produce a phenomenal outcome, especially if each classmate utilizes their special talents to contribute to the final project. Additionally, we should be able to learn from each other (for example, I would like to learn more about Maya, Google SketchUp, and archaeoastronomy through the help of one of my classmates more experienced in these topics). If, for example, the class were to produce one website, I am very attracted to the idea of a “virtual” tour guide guiding the viewer through the website. They do not necessarily have to be 3D or animated, just a guiding factor to the project, for clarification and originality. The tour guide could be present in each page of the website and give small facts or help (like the Office Assistant application in Microsoft Office software) to amuse the viewer and to inform them.

As my “area of expertise” is illustration and stylized cartoon drawing, I would really enjoy working on the image of a tour guide. However, if this is not an idea agreed upon in the class, or if the class would like to give the project a more professional look and the tour guide would detract from this professionalism, I would really enjoy producing any type of illustration or drawing for the project. I am interested in drawing scenes of occurrences in the daily life of the people of Cuzco and not only draw the scenes, but also people them. These could be done with traditional media of art, or done in Photoshop, which I am practicing to perfect my skills in it, and which I would like to continue working on my skills in Photoshop in. For fitting the illustrations into the context of the project, if there would be a 3D map of Cuzco, individual components of Cuzco could be clicked on and separate page would open up, complete with illustrations and information gathered by others, as well as whatever else the class would like to put on these pages.

For tasks that I am less experienced with, I would like to work with 3D software such as Maya or Google SketchUp, or work alongside someone and learn as we work, to map out Cuzco and the Ceque lines, or even model humans to people our scenes with. I would like to definitely integrate cosmology and perhaps illustrations of the celestial sky into the project, as this is a budding interest of mine and something I would like to learn about with the help of classmates. Additionally, I have been practicing web design for a few years and have gone on a long hiatus from creating web code and would like to revive this skill, perhaps in this project.
Andrew Kimball

There has been so much information given to us about the ceque system that digesting all of this material has proven difficult, making it quite hard to narrow down what I would be interested in doing. I will present a few ideas that I would like to be involved in. First, I would like to recreate the solar gnomons in Google Sketchup and place them in Google Earth to visualize the shadows created during the solstices and equinoxes. Secondly, if we do build a website, I would like to create an overlay of Zuidema’s and Bauer’s ceque system that could be toggled on and off, to better visualize which lines coincide and which don’t. Thirdly, I would like to create a POV “walk through” along a few of the ceque lines with the constellations and night sky visible, in order to see if any connections can be made between the constellations and the ceque layout. Finally, I would like to create an overlay of the night sky and a map of Cusco to see if the designs of the city and ceque system were influenced by dark cloud constellations or if they were an attempt to literally reconstruct the astronomical world on earth.
Lana Porter

PROJECT INTEREST
Having been influenced and informed by the work of Larry Coben, I am interested in looking at the way specific huaca sites and architectural loci of ritual and theatrical performance in and around Cuzco transmitted semiotic cues to and guided the activities of the people, helping maintain order and strengthen the Inca empire. The spatial configuration of the huacas, both in their grand schematic placement within the ceque system and as individual sites, has multiple functions. The theatrics enacted about, within and around these sites, like the structures themselves, convey messages that carry meanings, which are decoded and interpreted by the citizens of the empire. I hope to examine one or two specific rituals that are situated within specific sites along the ceque system, paying special attention to the symbolic/semiotic messages that are constructed there and the interpretations that can be drawn from them. While my technical capabilities are not nearly as developed as my analytical/theoretical capabilities, I would like to contribute to the visual reconstruction of the sites using Sketch-Up and perhaps even Maya (albeit if only elementarily). I am particularly interested in collaborating with a technically gifted member of the class to reconstruct and bring to life some of the physical movements enacted in rituals, utilizing the motion capture technologies available to us through Penn/Digital Media Design department. As Coben discusses in his brief article about digital reconstruction, the drama that results from the combination of the spatial features of the environment and the performance of the ritual itself is heightened by the interplay of the two and carries important meanings for the empire. The more impressive these spectacles are, the more impact they have on the society at large. If there’s time, it might be interesting to examine present-day rituals in light of the rituals of the past (using other media such as video of recent rituals or interviews of people who have taken part) and chronologically superimpose layers of ritual over specific huacas or places along the ceque system.
Maria Nieves  

Project Interests  

As stated in my biography, I have a great interest in the Spanish language and would be very interested in using this for our final project. Although we have yet to discuss exactly what audience we will be targeting, I believe it would be very beneficial to have some Spanish translations. From my experience, the people of this region would most likely find our content interesting and would be more likely to understand Spanish than English. In addition to text, I thought it would be pleasing to add audio (in Spanish or English) when the user reached a particular huaca or site. As well, I am familiar with music from the region and could help to identify huaynos to use for our website.

As far as computer work is concerned, I do not have much interest or knowledge of any of the computer systems. If it becomes necessary for me to try these skills, I would of course do so even though it is not my first choice. Rather, I would prefer to conduct research and work side by side with a group or partner. In terms of my personal interest in the Ceque System, I would like to see how the everyday life of the Inca centered on the lines. I would like to focus on how elements such as their irrigation or travel concerned the everyday use of the huacas on the corresponding lines. Lastly, I think that if we created some sort of visual recreation (concerning the harvest, ceremonies at huacas, etc.), the viewers could get a greater perspective of the actions of the people. All the details would need to be worked out, but I think it could create a very concrete basis for viewers.
Luke Auld-Thomas

I'd like to model—in a phenomenological (human POV) way—the relationship between various huacas along the ceque system and astronomical events, namely the rising/setting of the sun and the appearance/disappearance of the Pleiades. If possible, I'd like to try out the view both from "privelged" spots (those presumably occupied by officiating religious specialists) and from the "cheap seats." This could help determine the extent to which astronomical phenomena were related to "public" or "private" elements of Inka state religion.

As regards solar alignments, I think it would be interesting to look for alignments in general before narrowing them down—while some days are known to have been particularly important, like the solstices, other days may have had mythological significance that's been lost in all the fuss over keeping track of time. I think looking for alignments when we wouldn't necessarily expect them could prove enlightening.

Finally, I'd like to investigate the relationship between the overall layout of the huaca system (Bauer's and Zuidema's models) and broader astronomical entities: the Milky Way, or prominent constellations as observed by Andean peoples. These in particular will be hard to model phenomenologically and wouldn't have much bearing on the final project (at least I would imagine not), but could provide some cool data to include as "content."
Brigitte Hurtubise

Interests

I have several interests in this project. In order of preference

1. Researching and modeling ritual associated with the ceque system and various huacas: we know that various rituals were performed in conjunction with huacas at specific times of the year; further research would bring a depth to the project and understanding of the system, which may lead to insights regarding the possible astrological nature of the system. It is also a great way to “people” the project, and a great way for me to begin to learn some of the computer systems their capabilities, and possibly developing a bit of expertise in their use. Hence, I would really love to partner or group with others who are both interested in the rituals and have the ability to model in some ways these rituals.

2. Documenting the experience: I am interested in the process of creation and the various principles/ideologies that contribute to form the representation of the this project. I would look at the process through an ethnographic lens and examine what insights such an investigation brings to the final product.

3. Translations: of primary source data, and also of the final project (or aspects of it) so that the project is also more accessible to the people living in the area now, who may not have a sufficient command of English but may be able to access the content in Spanish.
Diana Forrest

Project Ideas

For the CIS 106 class project, I am currently most interested in site exploration and mapping out the Ceque System to see if anything new can be discovered from studying the placement of the lines and huacas. In regards to exploration, while I do not have experience with modifying game engines, I would be glad to work with someone to enable free exploration of Incan sites and buildings. In addition, some sort of interaction between the user and objects, or maybe even between the user and scripted people/events, could be an interesting and exciting experience.

For the second interest mentioned, the topics of astrological alignment or irrigation system placement in relation to the ceque lines, huacas, or other important structures have caught my attention as well, in addition to whatever 3D modeling or animation that the project would require. That said, I would be glad to help wherever I can, be it modeling/animation, programming, or research.
Jacqueline Boytim

Project Interests:

Primarily, I am interested in contributing to this class as an ethnographer. Engaging in participant-observation would allow me to trace the construction of knowledge within the class, characterize the nature of communication between the different types of scientists involved, and, possibly, evaluate the role that the class project will have in the public sphere.

I am also interested in historical ecology and the archaeology of landscapes. I think it is important to illustrate human agency in the Andean environment, in order to dispel myths of an Edenic past that was suddenly manipulated and destroyed by modern man, and also those myths of ancient peoples being passive subjects of their environment. For this class, it would be most pertinent to study Cuzco’s agricultural districts and irrigation systems, since they are related to the ceque system. I would be happy to research the Incas’ affects on their landscape, and provide textual content for the website. I would also like to contribute to the presentation of this information for a lay audience—particularly, Andean peoples.
Emily Weihrich  
Ideas for My Individual Contribution

I am most interested in using the skills outlined above to aid in the “peopling” aspect of our class project. At the same time, I would be willing to help teach other students how to use the software tools listed above for their individual contributions. Likewise, I would also be willing to help integrate smaller mini-projects into a single multimedia website.

Idea #1: 3d representation of ceremonial (or day-to-day) clothing/costumes for people and/or animals

- Programs to use: Maya or SketchUp
- Would require creating or obtaining basic 3d models of Incan peoples and llamas (to which the costume elements would be added)
  - These shouldn’t be too detailed
  - Could be generic and slightly cartoony (to avoid issues of ethnographic portrayal)
- Could be broken up into:
  - 3d models of the costume pieces
    - Uncolored at first
    - Examples: animal pelt worn around the shoulders, headdress made of feathers
  - 2d textures of the costume colors and patterns
    - Would be used to color the 3d pieces
    - Example: jaguar spots, pattern of multi-colored squares
- Costume elements could be generated by looking at fragments of textile artifacts from the area and attempting to extrapolate possible designs (like in Redknap’s paper)
- Or, costume elements could be generated by looking at ceremonial costumes that are still used today

Idea #2: 3d representation of temples (could be huacas) within and outside the city of Cuzco

- Programs to use: Maya or SketchUp
- Could be broken up into:
  - 3d models of the temple architecture
    - Uncolored at first
    - Example: long, narrow corridor with supporting columns
  - 2d textures of the temple materials
    - Would be used to color the 3d architecture
    - Different textures for different times of the month (snow-dusted or not)
    - Example: repeating, offset stones
Final results could be peopled with the 3d models from Idea #1 (and Idea #3)

First person shooter (FPS) camera could be used to navigate the final product
  - Models could be imported into a game engine for additional features such as:
    - Ambient noise (talking, music, crunching of footsteps, fire crackling)
    - “Drunk” effect (lots of high contrast colors and motion blur)

Idea #3: Motion capture of a ceremonial dance (or ritual path) applied to a 3d character

- Programs to use: Motion Capture Software from SIG lab
- Would require at least one person (the mocap model) to learn and perform the dance moves or ritual path
  - Could videotape a demonstration by native peoples to use as reference
  - Could try and extrapolate steps by looking at existing video footage
  - Could try and extrapolate steps by reading through existing written documentation
- If learning dance moves or ritual paths proves to be too difficult, record daily activities instead
  - Farming movements (digging, planting)
  - Feeding animals
  - Conversational gestures
- Motion capture data could be applied to the 3d models from Idea #1

Idea #4: 3d representation of known Ceque huacas

- Programs to use: Maya or SketchUp
- Use images of existing huacas to create 3d approximations
- Same person could be in charge of both the structure and color of these models, since many huacas (like stone pillars or carvings) don’t have intricate colors or textures

Ideas for Individual Contribution of Other Students

Idea #5: 3d navigate-able, topological map of Cuzco and surrounding (known) huacas

- Programs to use: ArcGIS, Google Earth, ?

Idea #6: Toggle-able layers (drawn onto the map from Idea #5) for showing different Ceque system lines, irrigation system boundaries, and ethnic boundaries

- Programs to use: ?

Idea #7: Rendered “points of view” from various locations inside and around Cuzco temples
• Programs to use: ArcGIS, Google Earth, Maya, or star gazing software (Starry Night)
• Could place a camera (at eye level or ushnu level) inside an open plaza (from Idea #2) and point it inward (at the center of the plaza) or outward (at mountain peaks on the horizon)
• Could put sun, moon, or stars in appropriate locations in the sky
  o Determine which “points of view” can see certain celestial objects
  o Show time-lapsed positions of celestial objects throughout the course of a day

Idea #8: Interviews with Ceque system experts (Bauer, Zuidema, Aveni, or their students/colleagues)
• Programs to use (for editing): FinalCut Pro or After Effects
• Could extract the audio tracks and superimpose them over videos of Idea #6 (i.e. have experts narrate videos of student work)
• Topics of conversation:
  o Why one system vs. another?
  o Differences between huaca types
  o How to care for a huaca
  o Why study this system (why do you do what you do)?

Idea #9: 3d representation of the Incan Model of the Universe (disc bisecting a sphere with several key axes/quadrants)
• Programs to use: Maya or SketchUp
• Could superimpose this model over the top of the map from Idea #5

Ideas for Implementing the Final Class Project

Idea #10: Interactive website
• Navigate-able 3d map (Idea #5) with click-able sites of interest
  o Overhead view
  o First person view
• Each site of interest links to a different student mini-project
• Each student mini-project has a webpage with text, images, and videos (if applicable)
• Spanish version of the website

Idea #11: Video documentary
• Video interviews of students and Ceque system / Incan life experts combined with footage from student projects
- Students would discuss the research and implementation process for their projects
- Experts would explain Incan life or their theories on the importance/structure of the Ceque system
- Would be subdivided into different sections
  - At least one student mini-project to correspond with each section
  - Rough examples: Relative location of huacas (i.e. points of interest along Ceque lines), types of huacas, monthly ceremonies, “monthly” huacas, differences between rituals inside and outside of Cuzco