INSTRUCTIONAL TECHNOLOGY SURVEY ANALYSIS
The World’s Columbian Exposition model as instructional technology
Lisa M. Snyder, senior member, the Urban Simulation Team at UCLA

Professor Steve Mintz’s large-enrollment class American history class, University of Houston
Session: March 28, 2006
62 participants returned surveys
The presentation of the model took approximately 45 minutes, and coverage was split 70/30 on the exposition and the technology. The focus of the class was actually on later time periods, so the presentation of the model was a bit off topic. The survey was administered five days after the classroom presentation of the model.

Write up: Lisa M. Snyder

In describing these students and their survey responses, Professor Mintz wrote the following in an e-mail: “I am delighted by the student reactions to your presentation—and I hope you are too. Remember, not one of the students is in the big lecture class voluntarily. Virtually none have a positive view of history. Most are wary of anything that isn't directly linked to their exam. These aren't students who would voluntarily go to a history museum or historical site. To me, this is proof that even the most resistant student can be turned on by your approach.”

Question 1:
Overall, rate your last class session when you were shown the computer model of the World’s Columbian Exposition.
Average: 5.43 (on scale where 1=poor and 7=excellent)

Question 2:
How did this experience affect your understanding of the World’s Columbian Exposition?
Average: 5.72 (on scale where 1=nothing and 7=a lot)

Question 3:
How did this experience affect your interest in the World’s Columbian Exposition?
Average: 5.25 (on scale where 1=decreased and 7=increased)

Question 4:
How did this experience affect your interest in computer modeling and technology?
Average: 5.25 (on scale where 1=decreased and 7=increased)

Question 5:
Do you think interactive computer models are a good way to learn about architecture and urban space?
Average: 6.44 (on scale where 1=no and 7=yes)

Why?
They are an excellent way to visualize 3-D models and images and gain more than just a mental interpretation of blueprints and photographs.

S3: 6: Visual demonstration that can explain better than any book description
S4: 6: It provides a more solid and graphic representation than pictures and maps do.
S5: 7: As an architect major, I found the presentation very pleasing & educational.
S6: 6: It's a good tool to get people interested & like many others, I'm a visual person & need to just see some things to understand it.
S7: 7: Gives you a much better perspective on the use of space when you can see it in 3-D & reference to size.
S8: 7: Visual learning just like any visual aid in a presentation/lecture
S9: 5: I'm a visual learner
S10: 7: They are a very effective visual tool, especially in re-creating historical buildings & artforms and give a different perspective to history.
S11: 7: It shows the development of architecture through history
S12: 7: It allows you to actually see the design and get an idea of how it can actually be in real life.
S14: 7: Technology & the visual aid given helps a lot in seeing and understanding
S15: 6: Able to understand the architecture of the time period.
S16: 7: They help predict problems so we can adjust and save money.
S17: 7: Because I learn & understand better when it's hands on instead of reading out of a textbook.
S18: 5: Visually comprehensive, more engaging than static diagrams/images
S19: 6: Lets you look at things or buildings that don't exist anymore
S20: 4: Because it shows how buildings will look upon completion.
S21: 7: It makes it easier for visual learners
S22: 7: It show how everything was back then.
S23: 7: You can really see the models and understand styles and proportions.
S24: 6: Gives a clear mental picture instead of measurements on paper.
S25: 7: They allow people to understand more easily what architects and urban planners thought like back then.
S26: 7: It shows you (illegible word ... might be possibility) and the only thing that stops creation is imagination
S27: 7: Give much clearer idea bout the historical event, such as those building. And it is much more interesting.
S28: 7: This type of interacting with media and lectures, gives the student a more detailed description of understanding in the topic and objective
S29: 7: The more you get to see your ideals in actual concept is the key element of understanding faults.
S30: 5: You can see up close how the buildings were structured.
S31: 7: The visual aspect is very important in these subjects
S32: 7: I think technology & interaction helps students learn better instead of straight lectures.
S33: 6: Because it is a good way to preview or get inside a building or even just an idea.
S34: 4: Virtual, visual, your able to see it more clear
S35: 6: The computer models are a way to experience rather than just hear about it
S36: 5: Helps of understand
S37: 7: Give you a better understanding
S38: 7: Sticks in your head better
S42: 7: If the subject doesn’t exist anymore computer technology has the ability to bring the structure back to life and increase understanding.

S43: 7: Visually stimulating, pictures tell more when combined with words

S44: 6: Brings it to life

S45: 7: Show what pictures along, can’t

S46: 7: It showed the actual size and really made you understand the significance of its importance.

S47: 7: Computer modes are much more effective than still pictures in that there can be exploration of size scale and object location relative to other objects

S48: 7: It shows important aspects better.

S49: 7: I got to walk around and actually be there. Very neat!

S50: 7: Because it can give people a sense of how big these places were.

S51: 7: Makes it more personal and gives a better frame of reference

S52: 6: A lot of good detail

S53: 7: Perspective

S56: 6: Its the visual

S57: 6: Most people learn better if they see it

S58: 7: Technology is is important today, so it helps to give a really good picture.

S59: 7: Everything is going virtual.

S60: It helps the visual aspect, people gain better perspectives.

**Question 6:**

**What did you particularly like about this experience and/or the computer model?**

S1: I loved the detail that was put into the outside of the buildings and the way the cameras could be used to give an accurate description of real-time scale.

S3: The movement of the mouse that allowed you to experience it somewhat “first hand”

S4: The ability to see the architecture and frame work of the buildings as well as routes used to navigate the fair.

S5: The graphics. The dedication that was evident in the project

S6: It was amazing to see what technology can do, it was a great model.

S7: Allowed me to see how computer technology can be used to gain a better perspective on historical events.

S8: I like concept an instructor could use as an aid when teaching about different battles during Civil War or Revolution.

S9: The depth of perception

S10: I liked how it gave me an actual image to relate to the history I’ve only read about.

S11: The experience showed great enthusiasm for this technology.

S12: I became interested in the exposition. The computer model was really cool it looked as if I were playing a video game

S13: The structure

S14: The view of the buildings & work. Description of work

S15: The “walk through” and show of design

S16: The feel that I saw many years before now and I notice that the differences are not much (note: the handwriting here is difficult to read)

S17: It was really interesting; it[;s] shown me that there’s much that I don’t [know] about architecture content that’s requirer in a model. (note: ?)

S19: Just looking at the Roman style architecture

S20: The guy & Ferris W heel part.
S21: It was nice to see the layout in a 3-D view and also nice to be able to see the size of the buildings in perspective to our size.
S22: Everything was good. A lot of details they cover.
S23: The ability to grasp on size of fair, and looks and overall view of fairground that it can't get from a picture.
S24: The level of detail
S25: I was impressed by where thing[s] were located and by the materials used to make the buildings.
S26: It reminded me of when I used to do 3D modeling and the lighting effects and textures interested me.
S27: I remember it. Give clear idea about how the whole thing was settled.
S28: More detail, visual learning
S29: The conceptual perspective of the fair through visuals that any one can see. (Pictures on the internet)
S30: Interesting to see detail of buildings, and how buildings were to scale based on our height
S31: Free movement through the space.
S32: The details put into the display & how they could reconstruct something that really doesn't exist anymore.
S33: How real it was, and how I could see it coming together.
S34: It was like you were there in person
S35: How everything looked realistic.
S36: The landscape
S37: Very interesting & informative
S38: Very informative
S39: How life-like it was
S40: The detail and the way you can explore like if you were in the actual place
S41: I like graphics and architecture
S42: It was incredibly interesting because I had no previous knowledge of what it might have looked like. I thought it was just a Ferris W heel.
S43: It's intricacy and detail
S44: Ability to see the past in reality
S45: It had good descriptions, very detailed
S46: The details were interesting and the way you could move throughout the model.
S48: It was like a real thing
S49: I enjoyed the detail. I can't wait till classes are taught in virtual reality. I would learn so much more
S50: Seeing how these structures were made.
S51: W as very engaging and enlightening; much better than just pics! You get a sense of the space & technology of the time.
S52: The architecture
S53: The scale system
S54: That objects actually moved like the boats
S55: It severed (note: probably means 'served') as a visual
S56: Visual + specific and great
S57: You get a feeling of what it was like
S58: It felt real + the details were amazing - it would be great on Imax
S59: The virtual program.
S60: The dimensions of the buildings & Ferris W heel
S61: Good visual aid
S62: Helpful in understanding
Question 7:
What did you particularly dislike about this experience and/or the computer model?

S1: I wished there could have been more inside light in the buildings when it was dark.
S3: Dragged on
S4: The presentation was not really planned and the model could be more completed.
S5: The fact that it was unfinished
S6: I would have liked to see pictures of people actually being at the Fair.
S7: It all seemed pretty interesting. Would be nice to see the final product.
S8: Wasn’t complete. Would be better if Dr. Mintz could lecture while driving
S9: Not complete yet
S10: That it was incomplete.
S11: There was no dislike.
S12: What I didn’t like about seeing the exposition was that it left me wishing it still existed today.
S13: It was not finished
S14: The lack of it being complete. Was kind of dull. Need completion
S15: It wasn’t complete
S17: I was looking forward in her showing us how she actually creates the model
S19: It was boring
S20: Was boring. Need something to make it interesting.
S22: It was not full complete.
S23: Lack of people and not being able to look inside some building.
S24: It was not complete
S25: The lighting when it was dark.
S26: The drop in frames and the lack of some detail.
S27: Nothing. Just so big that I kind [of] got lost
S28: --
S29: If it was more complete it could have been better.
S30: It was too long
S31: That is was unfinished. Some sounds would have made it more interesting
S32: It was unfinished.
S33: I wouldn’t be particularly interested in doing something like that, but it was overall good
S34: She wasn’t very prepared, but she warned us.
S35: I think it was too long.
S36: How incomplete it was
S37: Nothing
S38: It was unfinished
S39: It was unfinished.
S40: Nothing
S41: None
S42: That it was not finished [note: with a ‘smiley’ face]
S43: It wasn’t finished.
S44: That it wasn’t finished!
S45: Nothing
S46: I didn’t dislike anything.
S48: Nothing
S49: It wasn’t complete. There weren’t people doing what they might do in the fair
S50: Nothing really
Question 8: How did this experience compare to courses that only use static slides or images? Average: 5.70 (on scale where 1=worse and 7=better)

Question 9: (not tabulated yet) What do you think are the best use(s) for these types of interactive computer models? (check all that apply)

In class lectures (- responses); Student use in class (- responses); Personal use at home (- responses); Shouldn't use at all (- responses); Other (- responses)

S11: Business
S16: Urban and regional management
S30: If students want to learn more, access from home
S43: All learning, especially chemistry, biology, physics

Question 10: (not tabulated yet) What aspects of interactive computer models do you think are most important for creating a satisfying experience? (Please rank your choices, with 1 with the most important)

<table>
<thead>
<tr>
<th>Aspect</th>
<th>First Choice</th>
<th>Top 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness of the model (frame rate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of detail in model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model based on factual evidence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive options within the model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo-realism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support or interpretive information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question 11: What is your most lasting impression of your experience touring through the World's Columbian Exposition model? (Use the back side of the page for your response. Please be as specific as possible.)

S1: The model gave an amazingly accurate description and visual example of what it must have been like to visit the World’s Columbian Exchange. It helped me gain a better understanding of how and why this World’s Fair had such a lasting impression on 1890's
people and why it was such a technological and social leap. The sheet scale of the model was a good way to better comprehend the message of the World's Fair, "that the future is open, it's big, and it's right here waiting for you." Thank you very much for this wonderful demonstration. I hope to see more of it again as it progresses. What a wonderful work in progress! (note: with a 'smiley' face)

S3: Got to see how everything was built and organized.
S4: I really remember the moving sidewalk representation, Ferris Wheel, and green building (note: ?) and how it surprised the visitors and relating it to scale with the models (note: I think the comment is about Manufactures, it's green roof, and how big it was, which is shown in scale with little model people)
S5: You gain a clearer understanding of the culture in that era simply by the architecture
S6: My most lasting impression was that it seemed like a lot of fun. The model was a great tool to show us exactly what we could have seen, if we had been there. The details were incredible, the shadows, the inside structures, etc. It almost felt like watching the movie Titanic. I saw pictures and had an idea of what the ship must have been like, but the movie made it come to life. This model gave me a way to visualize the World's Columbian Exposition in a new way.
S7: Allowed me to see accurate representation of a massive historical event.
S8: None; just a good concept for future use
S9: The detailing was especially interesting. Like the info about how it was expected for patrons to arrive via the moveable sidewalk. Also appreciated the info about the permanence of the Fine Arts Bldg. which now houses the Museum of Science/Industry & the elevated train.
S10: My most lasting impression was the intricacy and detail put into every aspect of the World's Columbian Exposition. Specifically the motives/inspiration behind each building and exhibit.
S11: The past can be brought back to life.
S12: I like the buildings based on Ancient design + the River.
S13: The space of the models & the movement as you move from building to building.
S14: Good work, needs more visual aid of people + interaction activities + model support and information.
S15: The framework of the buildings and knowing how it was built was very interesting and also what type of technology they had at the time.
S17: It was such a beautiful place I just can't believe it's gone now. Our architects (note: architects?) should reconstruct the place.
S19: Nothing!
S20: The little guy & the wheel (note: probably referring to Scott standing next to the Ferris Wheel for scale)
S21: I enjoyed understanding the layout and seeing/understanding the magnitude of size of the Ferris W heel.
S23: The size of the place + the intricate designs of buildings.
S24: It's a lot more impressive to me now than just a description in a book
S25: There was a lot of time put into the project.
S26: The most lasting impression was basically the size of the buildings and the Ferris W heel. Its different when they tell you how big something is and when they actually show you, to scale.
S27: Done need to be too detail as it were showing but it is better 'cuz it catch my attention more
S29: The detail in the buildings were just picture-perfect. Gave me ideas for my designs.
S30: Learned a little but didn't really care about subject.
S32: The creativity of the exposition + the amount of time input for it.
S33: How I felt like I was actually there and experienced it. That is very cool, its like going through time, and gives more understanding. I look forward to seeing more of this.
S34: I didn’t know about this at all in U.S. History until that day. It was great to see a visual computer model to show me.
S35: I thought the presentation was interesting. It is hard to tell how big the event was by just pictures.
S36: The Ferris Wheel
S37: It was very professional
S39: It was lifelike + gave me a better understanding of the world exposition
S40: The actual size of the buildings[,] almost incredible that we were capable of that back then
S41: Not as much interested in the fair itself as the ability to create realistic models of cities
S42: How massive the complex was and it’s importance in world (note: ?) unity and (illegible word)
S43: I am amazed by the architectural ability that was present even in the 1890s.
S44: It was very interesting, but hard to really judge as it was a complete experience. I really wanted to see more.
S46: The size and details of the building - it made me able to really see myself there.
S47: ie having a person standing @ the bottom of the Ferris W heel or building to show scale
S49: Going on the train ride
S50: How the structures of these places were built
S51: Very amazed at the technological advances at the period; the use of water throughout the space and the short life span of the architecture.
S52: It huge.
S53: The 25 mile loop (note: may have been referring to the elevated, 6 miles round trip?)
S54: The Ferris W heel
S56: The visual image[,] detail + experience
S57: The buildings were absolutely beautiful
S58: The fact that you could see building skeletons.
S59: Detail work shown about the buildings
S60: The height of the Ferris W wheel compared to a normal person.
S62: Great impression, increased use!

**Other comments:**

S8: Would be better in future (next to Question 8 on comparison to static image presentations)
S38: N/A (next to Question 8 on comparison to static image presentations)