

**Amiens Cathedral: City of God**  
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**Dr. Seth Holladay: Computer Science, Animation**

### **Project Purpose**

What was it like to visit a gothic cathedral in the thirteenth century? That is the question that will be explored in my project, *Amiens Cathedral: City of God*. The purpose of this project is to illustrate the experience a medieval citizen of Amiens, France would have had upon visiting the Notre-Dame, Cathedral of Amiens. This will be accomplished through researching the meaning of the symbolism embodied throughout the cathedral, through the patterns on the floor, the decorative flourishes in the stone work, the statuary, and the stained glass. From this research, a film will be created using 3D graphics and visual effects showing a medieval citizen of Amiens, France visiting the newly created cathedral as it would have appeared when it was initially constructed.

### **Project Importance**

In the study of art history, much time and effort is given in explaining how cultures, art, and architecture originally existed. Unfortunately, most of the visual examples of the works being examined exist only in their present decayed state, or in drawings, etchings and paintings from the time period. This project endeavors to use visual effects and animation to create a valuable resource to illustrate as accurately as possible the cathedral at Amiens as it was presented to the world for which it was created. The resulting film created in this work will thereafter be available as a resource for teaching about this piece of art history, and can serve as a starting point for others to expand the use of visual technology in transporting learners to distant places and times.

### **Project Profile Body**

Working with my mentors, I will research the history and art of Amiens Cathedral and then, through the use of 3D computer graphics and visual effects, create the cathedral in a newer form restoring some of the elements that have been lost over the centuries. Live actors will be filmed and composited into the 3D graphics as they portray the citizens of Amiens who experience the uplifting gospel narrative the cathedral offers as the travelers through it are transported from the mundane outer world into the sublime, otherworldly environment of stone and colored light. As the parishioner sits in the sermon, their gaze will drift towards the stained glass. The stained glass will become animated to illustrate how the images presented in this church aid in bringing the message of the sermons to life.

To aid in the research and authenticity of the project, it is expected that at least one trip to visit the cathedral in Amiens, France will be required for myself and at least one other participant. I have applied for funding from the BYU Laycock Center for Creative Collaboration in the Arts. If received, I will use the funding for a research trip to the Cathedral in December or early January.

### **Anticipated Academic Outcome**

A website will be created with a domain [www.amiens-city-of-god.com](http://www.amiens-city-of-god.com) and will be a resource that people can go to for a representation of what these architectural wonders were like when they were first built and used. An initial exhibition/showing will be organized at BYU in the Harris Fine Arts Center to celebrate the completion of this project and premier it to the world.

### **Qualifications**

My primary mentor, Dr. Seth Holladay, worked for a number of years at Pixar Animation Studio before returning to BYU to earn his doctorate in Computer Science, which he defended last Winter semester. He is offering me weekly guidance on technology and will use his years of experience in the film industry to ensure that the final footage displays a high level of professional realism. I began working with Seth on this project last Spring term and am currently enrolled in a special problems class under him. Regarding this project, Seth has said, “[Dennis] has a fascination for the historical and aesthetic value of the Amiens cathedral, and I feel he has the capacity to recreate it in 3D animation software in a way that can teach others and help them immersively experience this historical site and its significance. I also believe his success in such a project can help promote and encourage the exploration of immersive learning in other areas.”

Another key mentor in this project is Dr. James Swensen, is my faculty mentor for the Art History research that will be required for the historical accuracy of this project. He will also be assisting in locating student candidates who are majoring in Art History and would be interested in helping with the research and refining the narrative. Dr. Swenson has shown great interest in this project, and regarding it has said, "I believe that this project, if funded, will not only benefit Mr. West but will also be a tremendous resource for all of us who teach about the power, symbolism, and majesty of the great Gothic cathedrals."

In addition to the BYU faculty mentors, I have also reached out to Dr. Stephen Murray, a renowned authority on Amiens Cathedral who has written several books and articles on it and other examples of Gothic architecture and art. Dr. Murray is a Professor of Medieval Art History and Director of Art Humanities at Columbia University. When he agreed to work with me on this project, he also mentioned that they are planning on updating the Columbia University materials on Amiens Cathedral research. It is my hope that this may serve as a launching point for the updating of their materials. Throughout the remainder of this project I will be running all of my work by him for additional insight on historical and physical accuracy.

This is my Animation BFA senior project and I will be doing the bulk of the research, writing, and CG modeling, animation and compositing. I am currently working as a visual effects artist at the LDS Motion Picture Studio as I am finishing up my final year at BYU. My anticipated graduation date is in April 2014. As I have progressed through the animation program here at BYU, I have gained a great deal of interest and skill in the use of 3D graphics software to create realistic models and textures that integrate seamlessly with live action footage. This is a skill that is essential in the film visual effects industry which is what I am hoping go into as a career upon graduation. I believe that this project will work well as a showcase of my interests as an artist and will act as a vehicle for me to demonstrate my skills.

### **Project Timetable**

I began work on this project Spring 2013 term in a special problems class with Dr. Holladay. I am currently enrolled in another special problems class with him and will take an additional one in Winter 2014. In total I will have 9 credit hours dedicated to work on this project and will build a website upon which this project will be exhibited in April 2014.

As of October, 2013, I have researched the overall structure of the cathedral and am in the process of building a full size 3D model of it. I am also writing a narrative of a person's progress through the building so as to give the imagery meaning. I will have storyboards completed in November and a complete animated layout finished by the end of Fall Semester.

A major part of this project is the story told through stained glass. To illustrate this, I will animate photo-real stained glass from the cathedral. I am currently creating proof-of-concept tests to refine the process of doing this. By the end of this semester, I will have the process for animating the stained glass refined so.

Winter 2014 Semester will be used to film the live action footage, render the cathedral and animated stained glass, and composite the live action footage with the 3D imagery. In April 2014 the final video will be exhibited on a website as well as on a kiosk in the HFAC.

### **Scholarly Sources**

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Prak, Niels Luning. "Measurements of Amiens Cathedral." *Journal of the Society of Architectural Historians*. Oct. 1966: 209-212. Print.

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