

Visualizing Arkansas' Prehistoric Past

www.cast.uark.edu/cast/crate/



Center for Advanced Spatial Technologies (CAST)

Seeing the past through the digital eyes of the present, that's what local high school students are accomplishing today with 3D recreations that are being created and implemented as part of the *Creating Realistic Animation through EAST* (C.R.A.T.E.) program. This program helps EAST high school students to develop animation skills through projects that benefit their own communities.

Education and the Community

Community-based projects are one of the key elements for all EAST programs, but the normal school schedule limits the time that is available to students. Through the C.R.A.T.E. program, students have the opportunity to work during the summers as interns through collaboration with EAST and CAST (providing hardware and staff support) and create digital recreations using high-end, industry standard software used by leading animation companies such as PIXAR®. Students learn to model and animate objects, scenes, and human characters.

This project involved creating a 16th century 3D recreation of the Parkin Archeological State Park's site of the Indian village of Casqui located in Northeast Arkansas.

This C.R.A.T.E. project about Parkin was funded by the EAST Integration and Community Enhancement Project, private sector partners, and by CAST resources.



3D interior of Casqui home.

Life in a 16th century Indian village comes alive on the web.

Animation

To visit Parkin now, one would see large cornfields and small mounds. But with the creation of the animation, visitors have a better understanding of what a day in the life of a villager was like.

This project is seen from the viewpoint of a Casqui night-guard as he awakens and prepares for his night duties.

The animation provides rich detail and a realistic scene of the interior of the night guard's home and his life.

About EAST: The EAST Initiative (www.eastproject.org) is an outgrowth of a highly successful model that was developed by Tim Stephenson of Greenbrier High School in 1996. EAST is a project-based learning environment that utilizes problem-based service learning and advanced technological applications. CAST's participation in this program began with the first EAST GIS/GPS training camp held in CAST labs November 3-7, 1997. Since then CAST has been actively involved in providing geospatial training, support, and data to thousands of EAST students in Arkansas, California, Illinois, Louisiana, and Alabama.

3D Recreation

This team was made up of Kent Walker (Fayetteville High School FAAST Lab), Aaron White (Green Forest High School EAST Lab) and Harlan Skinner (Gravette High School EAST Lab) who are EAST students that trained at the EAST animation workshop with SoftImage 3D.

The students worked on creating a scene that captured a true Casqui villager's daily life, titled *Awakening of the Guard*. The students created the interior of a home complete with artifacts, people, and a story. The project was then displayed on the web and distributed on CD.



16th Century 3D recreation.

Kent and Justin worked on editing the first *Awakening of the Guard*, creating a more realistic scene, and added more artifacts and sound. Jeremy worked in Visual Nature Studio (VNS) to create a digital flyover of the St. Francis River located next to the Casqui village.

The CRATE team worked closely with the archeologist from the Arkansas Archeological Survey, particularly with Dr. George Sabo, to insure that the visualization was accurate.



Aaron, Kent, and Harlan.

A more recent project involved the expansion of the previous project. This team was made up of Kent Walker, who returned from the previous project (Fayetteville High School FAAST Lab), Jeremy Bain and Justin Reh (Rogers High School EAST Lab).



Digital flyover of the St. Francis River.

About CAST: The Center for Advanced Spatial Technologies (CAST) focuses on education, research, and service to the public, which forms the backbone of the CAST purpose and mission. CAST specializes in serving the academic community through its emphasis on university courses in Geographic Information Systems (GIS), Global Positioning Systems (GPS), and related technologies. CAST's research efforts, through multiple grants awarded each year, compliment and greatly benefit its educational and public service focus by allowing staff and students to stay on the leading edge of emerging technologies. CAST is also active in a wide range of services to the university, community, state, nation, and internationally. By building upon the expertise of the staff; the cooperation of the university community and state, regional, and local governments; the support of corporate sponsors; the assistance of federal agencies; and many others, CAST can blend its focus on education, research, and public service to multiply the benefits of all these cooperative effort~

Center for Advanced Spatial Technologies
University of Arkansas
Ozark Hall, Room 12
Fayetteville AR 72701

479-575-6159 phone
479-575-5218 fax
info@cast.uark.edu
www.cast.uark.edu