

# Developing a CD-ROM to Teach Ceramics

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## Abstract

Beyond the technical considerations, the integration of multimedia in education requires the consent, participation, and enthusiasm of the educator. To foster this relationship, a graduate student in Art Education, who is also the university's instructional multimedia and virtual reality specialist, volunteered to develop a CD-ROM documenting a Raku ceramics workshop to demonstrate the power of technology in cooperation with established pedagogical goals. This paper outlines the technical considerations that went into the production of this diverse CD-ROM. The production was grounded in the idea of the 'economy of multimedia' following a pragmatic path of realism and compromise to obtain a goal with available resources. These constraints did not limit the variety of media elements or the technical and creative application of their use.

The purpose of the CD-ROM is to follow the pedagogical outline of the workshop and to share experiential learning as well as concrete instructional demonstrations on Raku; it also serves to educate about the potentials of multimedia and of instruction with multimedia.

## 1 The Raku Ceramics Workshop

Raku is a two-week intensive ceramics workshop that has been taught for the past 16 years by Tim Shuckerow, the Director of Art Education at Case Western Reserve University. The workshop, which is offered as a 3-credit academic studio course, is also offered as a continuing education workshop open to members of the community. This workshop is taught, not on the main campus, but at Squire Valleevue, the University owned farm just outside of Cleveland, Ohio. Students in the class learn how to design projects in clay and to fire them using the Raku process in which ceramic pieces are buried in fiery pits creating a smoky black appearance. More than an art studio class, the workshop is an experience, which incorporates art, culture, performance, friendship, and often some good food. Students who complete the workshop are invited to participate again the next summer as advanced students and some have repeated the workshop 3 or more times.

The goal of the CD is not to have it serve as a replacement for taking the workshop. Instead, it is to allow the viewer to get a sense of what the workshop is like. The pedagogical goal of the CD is to mix instructional demonstrations, student work, cultural experiences, and the space of the farm itself to create an experience for the viewer as well as a knowledge repository.

## 2 The Economy of Multimedia

At every stage during the development of a CD there is a need to focus on the 'economy of multimedia'. Everything about multimedia production is a compromise, and the constant attention to this results in a stronger final product. What

equipment is available for shooting? for post-production? How much time is there to shoot? What sort of access is there? How much room is there on the CD? Will serendipity work for or against the project? How much time is there to post? At every step along the way it is important to be able to weigh the consequences of compromise and know when to walk away from a part for the good of the whole. Multimedia is about perception: how much detail, information, quality, and time need to be invested to make the viewer effectually and affectually experience the vision? This is the 'economy of multimedia' and it is the key to the successful completion of any project.

## 3 The Raku Experience CD-ROM

The final CD was stuffed with content: 84 video clips with over 2 hours of video, 18 - QuickTime VR cubic panoramas, 40 QuickTime VR objects, 64 - 3D photos, and 62 - 2D photos, wrapped inside a user interface with animated elements and the QuickTime installer for Windows.

The Raku Experience CD-ROM premiered at the 'Semester in Review' show at the Art Education Gallery in the Fall of 2002. The response to the CD has been very positive. People found the user interface easy to navigate and poked around the various elements of the CD. The QuickTime VR objects and 3D images factored in better than expected. Rotating the VR objects and viewing the 3D images with the anaglyphic (red/blue) glasses proved more than a novelty. Often on the CD, a video of Shuckerow talking about an object or demonstrating a process will be presented alongside the QuickTime VR of the object for study. Not only do the VR objects complement the video, but perceptually they enhance the quality of the video as the objects fill in the details on the lower resolution video. Similarly, the 3D images help to define the location, the space, and some of the action of the workshop experience.

The success of this project has inspired further collaborations and the creation of less experiential/more instructional CDs for Art Education.

## Links

Argus - 3D Camera Kit

<http://www.arguscamera.com/accessories.html#3D>

Berezin - 3D Glasses- <http://www.berezin.com/3d/Default.htm>

Case Western Reserve University - Art Education Home -  
<http://www.cwru.edu/artsci/artedu/index.html>

Jared Bendis' Home Page - <http://www.jaredjared.com>

Kaidan - Panoramic Tripod Heads - <http://www.kaidan.com/>

PTGUI - Panoramic Software - <http://www.ptgui.com/>