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Recuerdos de la Alhambra [electronic resource] : thesis project

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"Recuerdos de la Alhambra"

A Multi-Media Project

A Thesis

Presented to

The Faculty of the School of Music and Dance

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

by

Heidi Virginie Mitchem

December, 1996

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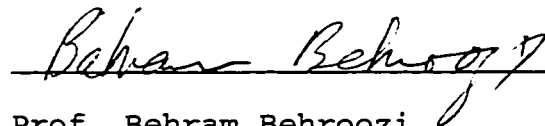
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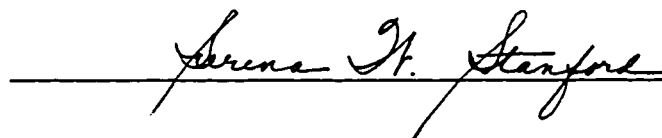
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ABSTRACT

"Recuerdos de la Alhambra"

A Multi-Media Project

by Heidi V. Mitchem

This thesis is a multi-media presentation of the classical guitar piece, "Recuerdos de la Alhambra", written by Francisco Tarrega. The CDROM format was chosen for its ability to store enough data to include the many file types needed to make the presentation. These file types include video, sound, text and photographs.

The various aspects of the piece that are covered are the history of the palace for which it was written, performance practice of the piece, biography of the composer, and a bibliography. Also included are video clips of both the left and right hands playing the guitar, a full body shot and a slide show of photographs from the palace.

SYSTEM REQUIREMENTS

Macintosh or PowerPC

2X CD-ROM Drive

8 MG RAM

8 bit sound

The enclosed CDROM is a multimedia project that includes music, video, text and still photographs. This form of media was chosen because of its versatility and interactivity. The main subject is a classical guitar piece called "Recuerdos de la Alhambra," written by Francisco Tarrega.

The process of creating a multimedia project for CDROM was intensive and time-consuming. However, I was able to accomplish what I set out to do. The project is formatted for the Apple platform. With more time and more complete facilities at San Jose State School of Music and Dance, I would also have had it formatted for PCs.

The following topics are presented as interactive buttons available to the viewer of the CDROM:

Performance

Right Hand

Left Hand

Slide Show

Palace History

Composer Biography

Bibliography

Credits

The first four buttons are in video format, have sound and can be stopped at any point. The performance is a full body shot of myself playing the topic piece, "Recuerdos de la Alhambra." It shows both the left hand and the right hand. The left hand button shows a close-up of the fingering of the piece while the right hand button centers on the tremolo technique used. The slide show incorporates a variety of photographs of the palace and is accompanied by the piece that I arranged.

The remaining four buttons are all individual pages of text. Each page of text has photographs of the palace in the background to provide aesthetics. With each button, a click on the mouse will bring the viewer to the chosen subject. Once the topic has been accessed, another click will take the viewer back to the main menu.

The project was completed with a step by step process. These steps are as follows. The first step included locating three video cameras. The best type of camera to use when digital output is the final goal is Hi8. I was able to check out the Hi8 camera from the School of Music and Dance, borrow one from a friend, and rent a VHS camera from a local camera store.

Once I located the three cameras I fitted them with their respective tapes and prepared the studio's playing room for recording. I did this by creating an arc of three

baffles to prevent the sound from dissipating into the rest of the large room. I also set up the three cameras so that there was a shot each of the left and right hands as well a full shot of the guitar. To provide a clean audio recording I set up two AKG 160 microphones. One was centered near the hole of the guitar while the other was set near the neck. These were then fed through the patch bay into the mixing room.

To help with the synchronization of audio and video, both were recorded at the same time. The video was recorded on the two Hi8 cameras and the VHS camera, while the audio was recorded on both DAT and Digidesign's ProTools.

In order to allow the audio to go to both the Digital Audio Tape and ProTools on the computer, the stereo microphones went through the mixing board. These then were wired to go in stereo to DAT and ProTools. The reason that I recorded to DAT was for backup, and by recording to ProTools I obtained the necessary digital files to use with Macromedia Director, the authoring system.

The next step in data collection entailed searching on the internet for images of the Alhambra palace. There were many sites available but the best one was from the University of Australia Art History Department. From this site I downloaded 24 photographs on my PC at home. I imported them into Corelphoto and changed them from JPEG to

MPEG files which are compatable with the Macintosh format that I was to use at the school studio.

My historical, biographical and performance practice research was done in the libraries at San Jose State. However, some information was retrieved from personal resources. After I wrote up the respective information on the PC I stored it on floppy discs to import into the Macintosh that is in studio 183.

Once I had all of the information and data gathered, it needed to be edited and then compiled. I began with the editing of the sound. Before working with the DAT and ProTools recordings, however, I recorded a version of the piece played on the guitar synthesizer. To achieve an appropriate water effect I chose a sound called "tear drop." This, too, needed editing. The edit of the acoustic classical guitar version was more of a cut and paste project because the sound was recorded without any distortion or overload. Therefore, I took the signal from the ProTools version and cut in at the beginning and out at the end. This eliminated various other takes that occurred before and after the chosen version. The cut and paste was done by importing the sound file (AIFF) into Sample Cell and using the tools in this piece of software. Playback was possible through the use of various hardware pieces such as a patchbay, mixing board, speakers and the sound card in the

computer. The edited file was stored as the file type required by Adobe Premiere, the video clip editing software. This piece is not copywritten and may be used for educational purposes.

The second sound file, played on the guitar synthesizer, was edited in ProTools, allowing for some special effects. Again, the beginning and the end were cut to narrow down the correct version. As I had a stereo wavelength image of the piece, I accessed one image and staggered it a half second behind the other. This achieved an effect that made it sound very different, especially with the synthesizer sound. This AIFF file too was imported into Sample Cell and stored to Adobe's requirements.

Because of the great use of the computers in studio 183, my media had to be stored, ultimately, on Syquest cartridges. These were used with my own Syquest Zip Drive that I brought to and from the studio. This could only be connected to the computer when it was turned off and via a parallel port in the back.

Once the text and sound were edited, the slide show of photographs from the Alhambra had to be compiled. This entailed importing each photo in its JPEG format into Adobe Premiere from Adobe Photoshop where previously they had been downloaded and prepared for Macintosh format. Once this was completed, the next step was to place each photo where it

belonged on the two visual tracks that I used. Between the individual pictures, I placed a transition. Open curtain and close curtain were each chosen for the beginning and the end, respectively.

For each of the others, a different transition was chosen to give a never-repeating effect. Because I only had two minutes of the guitar synthesizer version, I had to adjust the length of the pictures and the transitions accordingly. When these were in place, I imported the sound files which were stored on the Syquest. The file was transferred onto the editing page of Adobe Premiere and placed on the available sound track. With these items now in place, my first video was complete.

Although the slide show was made of still photographs, because it was full of transitions and sound it became a video. This was stored as an MPEG file. At this point, all that remained in the editing process were the three videotaped versions. Because they were all recorded at the same time I was able to use the same sound clip for each. Like the sound, all three versions had to have the cuts at the beginning and the end. The hard copies were in Hi8 format and were imported straight into Adobe Premiere. However, because of the lack of storage space on the computer system that was hardwired into the Hi8 deck, the moving picture was transferred to the video suite by

ethernet. Also, it was digitized through a Radius video box to achieve ultimate quality and resolution. Like the still pictures, these files were imported into Adobe Premiere and placed on one of the visual tracks available. The sound was added as were beginning and end transitions. The right hand, left hand and full guitar shots were all edited in a similar manner and used the same sound track.

Now I had the four movie files, bibliography, composer biography, historical text, performance practice and credits list. The next step was to begin work with the authoring system, Macromedia Director. Before importing the media, a basic template had to be made in Director. A picture of the palace fountains was used as the background for the buttons page. Within MMDirector, I created buttons for each file. Each button is a green rectangle with a label listing one of the following:

Left Hand

Right Hand

Full Shot

Slide Show

Composer Biography

Performance Practice

Bibliography

Credits

The idea behind the buttons is that the users click the mouse on one of the above choices and this brings the users to the corresponding screen. For the movie files, as soon as the mouse clicks on the button, a new screen is accessed and the video immediately begins. When the mouse is pressed down while the clip is playing, it returns to the opening screen or buttons page. However, all of the interactivity was not produced simply by creating buttons.

The various components in MMDirector that allow a piece to be interactive include scripting, cast members (files), a score, a stage and a matrix. Each cast member or file is placed on the matrix which includes a time line. By using the programming language, Lingo, with the scripting box, the program is told what to do upon input by the user. The user can provide input with a mouse or a keyboard. The following is an example:

```
On mouse down
      go to the frame "12"
exit
```

Once everything was in place on the matrix and the buttons accessed the appropriate files, or cast members, a projector was made. This was a simple task achieved by pulling down the correct menu item and choosing "create projector." Although the projector compiled the project, the larger movie files were not embedded but were accessed

externally. Only the text and still photograph files were embedded. The projector file was stored on the Syquest cartridges along with the movie files.

The final step in creating the CDROM was the actual burning of the blank CDROM. This was a simple process that only took a few minutes. Once the CDROM was burned, it was checked for bugs by testing each button.

Although I met all of my expectations in this final draft, I did have some early ideas which I was not able to complete. One of these ideas was to have a score to go with the music. Each note would be highlighted as it was heard. This would have allowed the viewer to read along and perhaps practice at the same time. One of the problems that prevented this was the lack of quality of the score when scanned into the computer. Also, it would have taken professional Lingo programming to get the highlighter to run at the same time as the music across the score.

The other idea that I was not able to accomplish was having the videos controlled by the viewer. In this instant, a user would have had access to a control panel while the video played. This would have allowed pause, fast forward, rewind and slow motion. It would have allowed more careful study of the guitar work. However, due to complications in programming in Lingo, this was not possible.

Overall, I was able to realize most of my ideas in this thesis project and I am very pleased with the result. The viewer is able to learn about the piece, composer, palace, performance practice, and guitar techniques.

Please Note

The diskette is not included in this material. It is available for consultation at this author's graduate school library.

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