

## Fieldwork at the Marr Sound Archive, University of Missouri Kansas City

In the summer of 2007, I spent five weeks working at the Marr Sound Archive, housed within the Miller Nichols Library at the University of Missouri Kansas City. My work focused on the archival materials of Raymond Scott, a composer and bandleader from the 1930s, '40s, and '50s who went on to invent early electronic synthesizers in the '50s, '60s, and '70s. The Scott collection at Marr includes over 600 open reel tape recordings, nearly 3,000 acetate discs, and paper components such as sheet music, correspondence, and schematics for inventions. I was fortunate to work with all three aspects of the collection.

My objective in working with the open reel tapes was to create digital files for access and storage on the library's server. This work is critical, as these tapes are unique, and some have already begun to degrade and shed media. In addition to practicing the basics of working with archival tape, such as controlled rewinding, splicing broken tape, adding leader tape, and cleaning with isopropyl alcohol, I also learned to contend with the unusual nature of Raymond Scott's recordings. As an audio engineer interested in the capabilities of his chosen media, Scott often re-spliced and recycled old tape, jumping between recording speeds of 15, 7.5, 3.75, and 1.875 inches per second. He also switched between one, two, and four possible tracks, sometimes recording in mono, and sometimes in stereo, sometimes in one playback direction, and sometimes in two. Add to these factors the content of the recordings, tests of experimental oscillators and synthesizers, and determining the correct playback specifications often became an act of detective work. It was very helpful to bring a familiarity with Scott's instruments to the project. This gave me a basic sense of the general families of tones with which Scott tended to experiment, and allowed me to choose playback speeds based on what sounded most stylistically correct.

With playback specifications settled (though often changing throughout each reel), I could then play the reel on the correct tape machine, feed the signal to an analogue-to-digital converter via a patch bay, boost the signal digitally in a digital equalizer, capture the .wav file in Wavelab software, and save my work to Marr's server. Editing in Wavelab for archival purposes was mostly restricted to boosting signal and adding reference markers. Additional work was required where the tape playback speed was adjusted during play or where the original recording equipment had malfunctioned. In my work, I used a sampling rate of 44.1 kHz and a bit depth of 24. This is a hybrid CD quality (44.1 kHz, 16 bit) and IASA's proposed international standards (96 kHz, 24 bit). Personnel at Marr feel that this hybrid standard provides a useful compromise between archival quality and manageable file size. Overall, I digitized 31 tapes at an average rate of 2.29 work hours per each recorded hour.

Another of my duties was cleaning and collecting cataloguing information about a series of 16 inch acetate discs, on both glass and metal cores. These discs chronicle Raymond Scott's work as both radio and television bandleader, most prominently on the popular show "Your Hit Parade." Currently, the Marr Archive is preparing a Grammy Foundation grant proposal for funding to capture digital transfers of these discs, so my work served as preparation for that upcoming project. For each disc, I created database entries for content information from the label and sleeve, such as the title, date, performers, songs, and recording specifications. I also noted the discs' core material and

physical condition, which ranged from good and transferable to extensively chipped and cracked, with the bare core exposed. I then cleaned the discs without cracks or losses on a Keith Monks machine, a modified turntable outfitted with a brush arm to apply cleaning fluid and a suction arm for drying. As I worked, I became familiar with the machine's standard mechanical difficulties, and learned how to diagnose and fix these problems. After cleaning, I sleeved the discs in new, acid-free sleeves, writing title, date, and track information in graphite on the outside. In all, I processed a total of 95 discs, of which I estimate approximately 70% are in acceptable condition for digital transfer at a later date.

The last portion of my work took place in the Kenneth LaBudde Special Collections Department, where the paper component of the Raymond Scott collection is held. My job was to process a cart of assorted late accessions to the collection, fitting them into the existing cataloguing scheme. These materials included both personal and business correspondence, newspaper publicity clippings, technical notes, schematics, and patents concerning Scott's electronic music inventions. I was again thankful for my previous familiarity with Scott's work, which made this job a good deal more manageable and interesting. In addition to adding material to the archive's existing topical folders, I recommended the creation of new folders for several of Scott's instrumental inventions that were previously unrepresented in the cataloguing scheme, such as the Clavivox, the Fascination, and Scott's all-consuming and ever-evolving project, the Electronium.

Library staff at the University of Missouri Kansas City made my summer fieldwork a valuable learning experience and an enjoyable time. My thanks go to Chuck Haddix, Kelley Martin, Charlie Stout, and Scott Middleton at the Marr Sound Archive; to Kelly McEniry at the Kenneth LaBudde Special Collections Department; and to Elizabeth Henry at the Miller Nichols Library.