



Ethnomusic and Sonification Techniques for Effective Earth Science Films and Interactive Media

Isaac Kerlow

Earth Observatory of Singapore, Singapore, Singapore (isaac@ntu.edu.sg)

Audio represents about half of the emotional power of any film or audiovisual media experience. Multiple stories told in Earth Science films have been enhanced with traditional music composition and instruments. New tools to augment this creative and communication process include ethnomusic, data sonification, sound effects, synthetic instruments, and digital audio mixing techniques. This presentation reviews these techniques and creative approaches in the context of recent art and science collaborations. Examples include volcanic field sounds, earthquake infrasound, Acehnese ethnomusic from Indonesia, and digital samples of ancient traditional Chinese instruments. The presentation also emphasizes five simple professional techniques that help integrate music, visuals and voice-over narration into a cohesive experience that is emotionally engaging.