This is a course about picturing music—not in the sense of imagining music, though that is a necessary first step, but rather about making pictures about music. A picture represents its subject in some way. A good picture explains its subject. A picture makes the ephemeral tangible, by allowing us to consider, and then reconsider, its subject. An increasingly common kind of subject for pictures is information. Informational pictures can be found everywhere, in newspapers, cable news shows, and websites, in maps and street signs, and in books and articles.

Musical pictures date to the Ancient Greeks and can be found throughout history in many forms, serving various purposes. Like the script for a play, a musical score guides the recreation of a musical work. A spectrogram depicts the shape of the sonic product of such a performance. Piano-roll notation, an analog of the spectrogram, depicts the texture of a work and the contours of its lines. We can find depictions of “musical spaces,” such as the circle of fifths. Music theorists are especially prolific in creating visual representations of musical structure. The work of music historians and ethnomusicologists sometimes benefits from pictures. Designed well, such images both reflect and shape our understanding of musical phenomena in ways that words alone often cannot.

In this seminar, we will study and create musical pictures. We will study the human visual system and explore ways to leverage it to effectively convey information visually. We will study principles of effective visual communication, based on the work of Edward Tufte and others in the fields of information visualization and scientific visualization. We will critically examine visualizations of a variety of musical parameters from across the history of Western music. You will learn to use tools for creating static and (depending on the interest of the students in the class) animated visual representations of music. We will explore how to mine musical databases for information and consider how to present it in pictures. Throughout the course, you will apply principles and use those tools to improve existing musical pictures and to picture music in new ways.

The course will be of interest to those using visual explanations in their research, including music theorists, musicologists, ethnomusicologists, and music educators. The course is open to graduate non-music majors with permission.

Prerequisites: MUS-T 551, T 555, or T 556; or permission of instructor.

Requirements: Extensive library research, regular readings and mini-presentations, daily discussion, one or two short papers, a seminar paper, and final presentation.

Texts
Required
Colin Ware, Visual Thinking (Elsevier, 2008)

Recommended
Edward Tufte, Beautiful Evidence (Graphics Press, 2006)
Edward Tufte, The Visual Display of Quantitative Information, 2nd ed. (Graphic Press, 2001)