

## Program Notes

### 🎵 Aspects

*Aspects* is a piece of electro-acoustic music. Early pieces written in this genre were of two distinct types, *Musique Concrète*, and those containing sounds that were generated exclusively by electronic means. *Musique Concrète* was music that used everyday sounds such as hand clapping, or the sound of a car engine as source material for compositional development. *Electronic* music used electronic sounds such as those of a sine tone oscillator as a source for its timbral environment. Modern pieces of this genre typically blend elements from both of these styles of composition.

The idea for this piece came from a desire to write an electro-acoustic piece that used a minimum number of sound sources, whose process for development would be easily discernable for an audience. The piece is written in three sections. The sound source for the first section is a single tone struck on a triangle. I used a process called time stretching to prolong this 7 or 8 second sound till it lasted approximately 6 minutes. This has the effect of emphasizing and prolonging the harmonic overtones of the triangle, which were then copied and layered into multiple audio tracks in the computer.

The second section uses sounds from an Arp *Odyssey* synthesizer. These sounds are transformed with reverberation and a transposer that takes the original pitch and transposes it to a higher or lower interval.

The music for the third section mixes the sounds of the triangle and synthesizer with drum loops composed using a drum synthesizer called *Rebirth*. The original loop was composed in 13/8 meter. As the section progresses the final loop is gradually transformed by a process known as phasing. Steve Reich used this technique in a piece called *Violin Phase*. It is a process where one looped sound is combined with other loops of the same sound that are occurring at slightly different times. In *Aspects*, as the loops repeat there are some that may be pushed ahead or dragged behind. At first this creates an echo effect, but as the music continues the phased loops begin to create new rhythm patterns.

### 🎵 Aspects – Notes on The Animation

The computer animation is essentially a commentary on what is taking place in the music. The sections of the music are well represented in the animation through the manipulation and transformation of basic geometric shapes. The simple and fluid nature of the animation give the listener further insight into the timbral development of sounds throughout the composition, while offering a stimulating visual universe that enhances rather than distracting from the music. As each new section progresses, a simple shape is introduced and elaborated upon until more complex forms and patterns can be seen. The animation was created using Macromedia's *Director* program, and is the result of the dedicated efforts of Jason Wojcik.