May 22 of last year, at the invitation of scientist Mark Lorang, I joined a research team from the Flathead Lake Biological Station, on two floats down the Middle Fork Flathead River, during which, I recorded audio above the river, while scientists Chris Gotschalk and Diego Tonolla recorded audio and data in the river, from the rafts. At the same time, scientist Rob Maher recorded audio and environmental data at the edge of the forest, and engineers Scott Colton and Stephen Doll recorded audio along the river bank, at the Middle Fork Flathead River research station.

In the Fall, I assembled a team of artists, including choreographer Nicole Bradley Browning, animator Amber Marjorie Bushnell, poet Mark Gibbons, dancer Allison Herther, narrator Stephen Kalm, and videographer Parker Nitopi, with the plan to develop, perform, and document a multimedia collaboration based on the research of Mark Lorang.

The process started with Mark Lorang writing descriptions of his research into the “highly complex, dynamic and diverse ecosystems” of rivers and their floodplains, and his hypothesis that insects, specifically the stonefly, navigate “the subsurface
of gravel-bed river floodplains” by the sound of rivers. From this springboard, Mark Gibbons wrote two poems, based on Mark Lorang’s writings, one that relates the genesis of music to our fixation with the sound of water, vividly translating these sounds into historic musical references.

Next, the creative team of choreographer Nicole Bradley Browning, animator Amber Marjorie Bushnell, and myself met to brainstorm the aesthetic and structure of the piece, the motion and staging of the dance, the organization and projection of the animation, and the instrumentation and textures of the music, and how these would relate to the poem. While individually developing these three components of the piece, the creative team met periodically to update and critique, and posted video, images, and audio on a shared web site.

The choreography is divided into three sections representing River: under the river, Animal: in the river, and Human: with the river, with Animal comprised of Insect, Fish, and Bird. The dancer interacts with a large cyclorama, a large sheet of elastic and reflective fabric, stretched across the width and depth of the stage. At the back of the cyc is a skirt sewn into the fabric, that allows the dancer to insert themselves into the sheet. The dancer is at times under the fabric, pushing and grasping at the cloth, and at other times attached to the sheet, twisting, stretching, billowing, and plucking at the expanse.

The projection is divided into three parts. The first, a panel at the back of the stage, that contains striations that undulate in response to a live audio feed from the music, and a colored shadow based on a live video feed of the dancer. Around the panel, also projected on the back of the stage, is intricate animation composed of hand-drawn river plants, insects, and animals, that grow and move in symmetrical patterns, throughout the piece. Projected on the cyc, that the dance interacts with, are animations built from insect and bird wings, that grow in density and modulate in color, as they pass over the surface.

The music is divided into three textures. The piece starts with processed spoken text, recordings of the poet reciting his poem, that have been stripped of their harmonic spectrum, stretched in time, and granulated into jittery textures. These
soundfiles, based on words, echo the live narrated text, and cascade in parallel along the sides of the audience, through a quadraphonic sound system, encircling the auditorium. The second texture is comprised of filter banks, built from spectral analysis of recordings taken at the field station and on the floats, that filter recordings taken above and under the water, into surging harmonies, that ebb and flow. These harmonies accompany bowed-string physical model synthesized sound, that uses the data of river depth to drive pitch, river velocity for amplitude or loudness, wind speed from the North for bow pressure, and from the East for bow position, creating a sonification of the environmental data. Finally, I perform live on electric violin, passages that combine the scales and rhythmic motives of the music and instrumentalists mentioned in Mark Gibbon’s poetry into original melodies, processed with multiple layers of phaser and delay effects, that sweep and echo in the four channel sound system.

The poetry will be narrated, music performed, choreography danced, and animation projected, in four premiere performances, opening the Dance in Concert, at the Montana Theatre, PARTV Center, University of Montana, Wednesday through Saturday, May 8-11, at 7:30 pm.

-Charles Nichols

Allison Herther rehearsing Sound of Rivers: Stone Drum

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