

Ceramic Tape

This work uses the sounds of pre-columbian devices from the andean region called *silbadores* or whistlers. These sound objects are made of interconnected ceramic vessels that are filled with water and then rocked to create unpredictable air pressure patterns that activate a whistle. The sounds of these devices were analyzed and transcribed to create a database that the computer recombines into new patterns to generate a tightly synchronized score and electronic part. I have been working with these objects since since 2001. In the years 2003 through 2006, I recorded a large number of these instruments at the Peruvian National Museum of Archeology in collaboration with the members of the project Waylla Kepa. These recordings are used in this piece.

Silbadores have been found along the Andean and Mesoamerican regions, from Peru to Mexico. They were first produced in Ecuador around the year 1000BC until the early colonial era (Arce, 2004). In the absence of notation, the music of ancient peruvian cultures has been limited to analyzing material qualities of the surviving instruments with a special focus on tuning systems (Bolaños, 1988; Gruszczńska , 2009, 2014) and their pictorial representations, which reveal information about their use and context.

Unlike many traditional instruments, *silbadores* are not depicted pictorially at all, being played as instruments or in any other way despite their wide geographical and temporal presence. More so, *silbadores*, with their glissandos, bursts of whistles and bubbles, and air and water turbulence, do not resemble traditional musical instruments. This has created a site for scholarly speculation about the nature of these sound objects; namely, whether they served a functional role, as an instrument to make music, or as sonic decorations. While there is no consensus as to the use of these instruments, the prevalent position is that they were not musical instruments.

Wilson (1898:654) cites musicologist Carl Engel as saying that *silbadores* were “barbaric artifacts” that “hardly deserve[d] to be classified as musical instruments” (Arce 2004). This early euro-centric impression of *silbadores* prefigures the late 20th and early 21st century debate about these instruments. Although they produce unique and remarkably complex sounds, the sounds they produce do not conform to the pitch-centric and controlled view of music in European culture nor to the views of what a primitive or traditional society’s music is expected to sound like.

The contemporary use of pre-Columbian musical instruments brings up interesting political and cultural issues. For Peruvians, ancient Andean culture is a symbol of idealized pre-colonial times which must be preserved intact and which generate a large tourism economy. This economy is based largely on Peruvians self-representing themselves as traditional rather than modern. The marketing and commodification of such culture relies largely on audio-visual materials in which, through various performance and studio techniques, “Andean” music becomes a modern product that is

engineered to sound ancient, mystical, pure, pre-colonial, etc.

By manipulating and transforming the sounds of silbadores with modern computer techniques, I attempt to produce music that doesn't contribute to the idealization or commodification of pre-Columbian cultures as mystical pre-colonial tourist attractions, but rather one that attempts to reflect on the sonic complexity of these historical devices and on the cultural complexity the issues that must be confronted when making contemporary music with these sound sources. To achieve this, the evidence of computer mediation is left abundantly clear to prevent the listener from assuming the usual passive consumption of "traditional" sound.

Only in these conditions I hope to explore the strong mimetic character of these sounds with animal song, the geometric complexity of pre-Columbian visual art, and the right to use historical devices to speculate on their use, by exploring their full sonic range and as a means to ask the question: What ideologies govern historians speculations on what counts as musical instrument? on what music of the past was like?