Bellows

Stefan Maier and Ragnhild May
For organ, feedback, spatialized loudspeaker array, and variable ensemble

PROGRAM NOTE

Celebrating the consecration of the Florence Cathedral, Guillaume Dufay composed the motet *Nuper Rosarum Flores* in 1436. Using spatial proportions derived from the dimensions of the Temple in Jerusalem as described in I Kings, every parameter of the work — pitch, duration, form — was composed to initiate an alternative spatial order: one present but unseen. As Dufay's composition resounded throughout the Dome, the mystical space of the Biblical Temple was summoned within the strictly Euclidean space of the church.

Some 400 years later a young Yves Klein, while wandering the streets of Paris, imagined awesome invisible buildings suspended above the city — so marvelous that they even rivaled the splendor of the city's palaces that line the Seine. Soon thereafter, he would begin his investigations into "Air Architecture" — a project in Klein's output of great variety. From blueprints of future homes that consisted entirely of pressurized air, to the abstract geometries formed by hundreds of Yves-Klein-blue Balloons released into the sky, Klein became fixated by the idea of imagining and materializing figures in air.

Throughout her multifaceted practice, Maryanne Amacher used sound to create and explore ephemeral spatialities. Through "tuning" buildings with large loudspeaker arrays and creating invisible shapes in air with extreme electronics, sound became the means by which various spaces — acoustic, psychoacoustic, imaginary — were articulated and instantiated.

Drawing on this lineage Ragnhild May and Stefan Maier prioritize space as the primary parameter of their collaborative compositional work. Here, the temporal constitution of Euclidean, conceptual, and perceptual spaces becomes central, as traditionally foregrounded musical parameters take a secondary role.

Bellows uses cathedrals as a site for this work. May and Maier distribute loudspeakers and large subwoofers variably throughout multiple rooms looking for nodes and resonances from disparate acoustic spaces. Rooms become the sounding chambers for Maier's electronic feedback and May's self-made instruments. Here, the building is instrumentalized: it is literally performed upon — sub frequencies travel through walls, shaking loose fixtures and door handles; high frequencies pass through multiple adjoining chambers, taking on unique resonant characteristics before reaching listeners.

This spatial complexity is mirrored in terms of the invisible spaces formed in air: the compressions and rarefactions of which sound waves consist take on a sculptural quality. Here, frequencies clash to produce irregular beating patterns and abstract airborne geometries. Equal tempered pitches from the church Organ conflict with the fluid tuning of May's self-made instruments and Maier's drones. From the smallest of spaces produced by nearly ultra-sonic heterodyning sinetones to the standing waves generated in the rooms to the massive spaces implied by phasing infrasound, through the interference patterns generated by conflicting tuning systems air is variably sculpted to form abstract spaces unseen.

The by-products of the constitution of these spaces are not without tangible ramifications, however. In particular, both May and Maier are interested in Otoacoustic emission (OAE). OAEs are sounds of cochlear origin: they are present in all human hearing, as a result of motion of the cochlea's sensory hair cells. Though usually too quiet to be perceived, if sufficiently excited by extreme auditory stimulation — as in this case with Maier and May's collaborative work — OAE can be heard. Much like the unique resonant characteristics of different rooms exposed by loudspeakers, here the auditory system is activated so that it sounds on its own terms: the very cochlear chamber of each and every listener becomes an instrument in and of itself.

May and Maier consider instruments, buildings, and — most fundamentally — ears not as the neutral means of transmission, but rather as the foundational sites of composition. Crucially, then, the shaping of discrete aural spaces becomes equally important as the sonic information projected: after Amacher, *Bellows* eschews "notes without ears," loudspeakers without diffusion and instruments without mechanism. Instead, May and Maier embrace a composition that can only be heard in and as a body, in a space, with other bodies — both instrumental and subjective. Through the constitution and interplay of these multiple spatialities — through the choreography of sonic geographies — the plurality of listening is exposed.