Program Notes for November 19th Recital

Music for snare drum, pure wave oscillator, and one or more reflective surfaces (1990) . . . Alvin Lucier (b. 1931)

This is one of many pieces that was commissioned by the percussionist and composer Stuart Saunders Smith for his collection of unaccompanied snare drum solos in *The Noble Snare*. One of the motivating factors for Smith to commission a collection of works for snare drum was the possibilities he saw in an instrument that for him was "like an ocean of sound — virtually every pitch represented — with subtle waves and currents."

With this piece, Alvin Lucier offers instructions for the performer to access these subtle waves of variation in the rich noise of the snare drum not by playing it directly, but by manipulating the frequency and volume of a sine tone. By sweeping the oscillator slowly from high to low, the snares vibrate sympathetically with the pure tones, producing a composite sound with a rich complexity.

Lucier has described the snares of the snare drum as "wonderful, resonant, and passive performers." In this work, the snare drum truly emerges as the performer, while the percussionist only serves to help excite the snares with the oscillator. As the frequency and volume of the sine tone slowly shifts, nodal points are discovered where the snares begin to pulse, producing a rhythm all on their own.

Piece for Tape (undated) . . . Conlon Nancarrow (1912-1997), arrangement by Dominic Murcott

Although Nancarrow is best known for his player piano pieces, he originally dreamed of writing music for a completely mechanized percussion orchestra. His early attempts at constructing such a contraption ended in failure, but before turning to the player piano, he made a short study using drum and wood sounds recorded on magnetic tape. He used tape splicing techniques to manipulate the placement of the sounds, creating fast rhythmic pulses that would have otherwise been incredibly difficult to perform live.

The work is comprised of one monophonic line, but the tempo, arrangement of materials, and rhythmic structures suggests a complex polyphony that Dominic Murcott refers to as "hierarchical superimposition." Although all the sounds are distributed on a grid of sixteenth notes, some sounds occur at a periodicity against the grain of the time signature, which is further augmented by the registral separation in both the wood and the drum sounds.

The materials in the original tape piece consist of eight drum and eight wood sounds, but each are separated into groups of four by a gap in register, so that there are four "low" sounds and four "high" sounds for both skin and wood. This difference in register serves as the primary vehicle through which Nancarrow is able to sculpt an audible separation of different rhythms that emerge from a monophonic line.

Bone Alphabet (1992) . . . Brian Ferneyhough (b. 1943)

The ratio-based rhythmic complexity that has come to define Ferneyhough's music is in one sense a continuation of the ideas explored by Nancarrow in *Piece for Tape*, but also those explored in his subsequent studies for player piano, which often reflected Nancarrow's fascination with the relationship between ratios, pulses, and pitch.

In *Bone Alphabet*, Ferneyhough presents a nearly impossible puzzle to the percussionist: Assemble a collection of seven instruments from low to high with a similar dynamic range and a relatively fast decay. However, no two adjacent instruments can be of the same material. If the lowest instrument is a skin, for example, the next one cannot be a skin, but must be wood, metal, glass, etc.

This one simple rule is part of what makes *Bone Alphabet* such a challenging work to interpret but is also what gives it its distinctive sound. Although the level of pitch is ordered from low to high, the atomized organization of the instruments makes it nearly impossible to distinguish the polyphonic lines that move throughout the piece. This atomized organization of the instruments functions to destabilize the written music, which gives agency to the materials themselves, resulting in a chimeric musical organism. The tension between the complex polyphonic lines and the arrangement of the instruments produces novel expressive gestures that could not emerge simply through improvisation. Through this process, Ferneyhough is somehow able to find a rich expressive vocabulary in what is a relatively limited collection of found objects.

From low to high, my instrumentation consists of a low floor-tom, a large metal bell, bongo, large piece of ceramic, wood, glass bottle half-filled with water, and a small shard of ceramic.

Reflections on the Nature of Water (1986) . . . Jacob Druckman (1928-1996)

I. Crystalline

II. Fleet

IV. Gently Swelling

Reflections on the Nature of Water was written for the percussionist William Moersch, who also offered advice to Druckman during the process of composition. It is also, as Druckman states, a "payment toward a very large debt" to Claude Debussy, who is partly responsible for Druckman's decision to become a composer himself. Druckman cites Debussy's preludes as explicit sources of inspiration for this piece.

Though Debussy, and romanticism more generally, is certainly present in Reflections, it is definitely a product of the 20th century. One can also hear echoes of Webern, for example, in the many silences that feature in the first movement, and the influence of electronic music is also present, not unsurprisingly, as Druckman was associated with the Columbia-Princeton Electronic Music Center and director of the Electronic Music Studio at Brooklyn College.

Comprised of six contrasting movements (Crystalline, Fleet, Tranquil, Gently Swelling, Profound, and Relentless), Reflections captures the mercurial nature of water through a prismatic approach to the marimba, successfully extracting the various tones and colors present in the wooden bars and resonators.

Le Livre de Claviers (1987-1988) . . . Philippe Manoury (b. 1952)

IV. Solo de Vibraphone

This piece is the fourth movement of Le livre des Claviers, which Manoury composed for Les Percussions de Strasbourg. The work was initially intended to be a pedagogical piece, but eventually turned into a suite of six pieces. Manoury states that the primary motivating factor to write a suite for keyboards was the existence of the sixxen, an instrument designed by Iannis Xenakis specifically for *Pléïades* (1978). The sixxen is a collection of six metallophones set up like a keyboard, but which have an indeterminate pitch, so that any unison notes played on all the sixxen will result in a tone cluster. There are two movements in *Le Livre de Claviers* for sixxen, which for Manoury required an entirely new compositional approach, influencing the way he wrote for the other keyboard instruments. The other movements consist of two marimba quartets with Thai gongs and a marimba duet.

The vibraphone solo was written as an exploration of the acoustic possibilities intrinsic to the instrument. The metal bars can resonate for a long time, but each individual pitch can be extinguished with fingers or mallets. Manoury makes use of this possibility by creating a negative melody throughout the piece, producing moments where all the pitches of the vibraphone ring at once, and the order of notes that are extinguished become as important as the notes that resound. In this way, Manoury creates what he calls a "polyphony of appearance and disappearance," which could only be conceived of on the vibraphone. It is also possible to hear the influence of electronic music, from the pointillistic arrangement of the pitches, to the imitation of filters by the dampening of the bars.

Fontana Mix: Feed (1964) . . . John Cage (1912-1992), realization by Max Neuhaus (1939-2009)

Fontana Mix was first created when Cage began to compose a piece of musique concrète in Milan, Italy by the invitation of Luciano Berio to make a tape piece, and is named for his landlady in Milan, Signora Fontana. He had three months to produce a piece of music on magnetic tape, and in that time, instead of setting to work on creating the tape piece, he created the tools of Fontana Mix, which he utilized in order to create a version in the electronic music studio in Milan, Italy.

The score consists of 10 transparencies with dots, 10 opaque sheets with 6 curved lines, half of them dotted and the other half solid, all with varying thicknesses, one transparency with a graph, and one with a straight line. In order to construct a program, each transparency is put on top of one of the opaque sheets with the curved lines. Then, the straight line is used to connect one point within the graph to one point outside of the graph. Once this is done, one has a viable configuration of the materials.

For *Feed*, Max Neuhaus placed two contact microphones on two large kettle drums and used the *Fontana Mix* score to direct his actions, which were made solely through a mixing board. It is important to note that he did not use all the parts of *Fontana Mix* to create his score, but only created time brackets for when to perform certain actions. As Neuhaus describes in his preparation notes:

"The score for the performance was made by assigning a ten-second time period to each of the differentiated lines on the opaque sheets. When the transparent sheets with dots were superimposed over these, each dot coinciding with a line dictated a change in one of the resistors during the time period assigned to that line. The specific resistor to be changed was then decided by throwing dice. Throughout the piece, these changes in the adjustable resistors are extremely slow and gradual." -Max Neuhaus

Messagesquisse (1976) . . . Pierre Boulez (1926-2016) . . . arrangement by Stuart Jackson

Pierre Boulez wrote this piece for the 1977 La Rochelle cello competition and dedicated it to his friend Paul Sacher, who at the time was the president of the IRCAM Foundation and a fervent supporter of contemporary art. The name Sacher is incorporated into the piece in numerous ways. It is used to derive pitch materials, rhythmic passages (by transforming the letters into morse code), and the number of instruments in the

ensemble (six plus a soloist). *Messagesquisse* is a portmanteau word that contains "messages" to Paul Sacher and is coded symbolically as an "esquisse" (sketch).

I was motivated to create a marimba version of this piece after hearing Alexis Descharmes perform it as a solo with the six accompanying parts prerecorded. Though there are some timbres idiosyncratic to the cello that are used in the piece, such as ponticello, col legno, and harmonics, the heart of the piece lies in the organization of pitches based on the Sacher hexachord Eb, A, C, B, E, and D. The advantage of the marimba is that it is relatively easy to retain the clarity of pitches even in the faster passages. For the timbral-specific material, this afforded me an opportunity to explore new possibilities on the marimba, translating extended cello techniques into other sounds on the marimba using a bass bow, wooden dowels, and *Reibstock* (an implement borrowed from Helmut Lachenmann).

Rebonds B/A (1989) . . . Iannis Xenakis (1922-2001)

Rebonds was written for the percussionist Sylvio Gualda, a longtime collaborator with Xenakis for whom many other pieces are dedicated. *Rebonds* is divided into two autonomous movements, A and B, which can be performed in either order (I've chosen B/A for this performance). B is scored for two bongos, conga, tom-tom, bass drum, and five woodblocks, while A is for two bongos, three tom-toms, and two bass drums.

In both works, Xenakis locates the tension between the registral extremes of the instruments, between the high bongo and low bass drum in A, and between the high woodblock and bass drum in B. In both A and B, strict processes are employed to explore the tension between these extremes, and novel events are inserted at various points to destabilize those processes. In A, the introduction of increasingly frequent polyrhythms function to slowly destabilize and saturate the sonic space between the bass drum and the high bongo, while in B, a steady process on the drums is disrupted several times by interjections made on the woodblocks, until the drums and woodblocks are finally integrated before ending in an energetic tremolo on the bass drum and high woodblock.

It is possible to locate echoes of Nancarrow in the works of Xenakis. The idea of "hierarchical superimposition" is present, although often referred to as "sieves" in the work of Xenakis. The dominance of polyrhythms in *Rebonds*, as well as in other works such as *Psappha* (1975), *Persephassa* (1969), and *Pléïades* (1978), explore many of the same concepts that Nancarrow was exploring in *Piece for Tape* (as well as later player piano studies), which, though undated, was likely created sometime in the 1940's. We can now only imagine what kind of pieces Nancarrow may have composed if he had had a percussionist like Sylvio Gualda to collaborate with.