WORLD FROM A SINGLE STRING
Terry de Castro, Los Angeles, 2010

"…He's forged his own way and came up with systems that no one formally trained in foundation would have come up with; he breaks the rules from the ground up."
--Rhys Chatham

"…The entire history of my work in music has been derived from a single, subjective experience with sound."
--Arnold Dreyblatt

Arnold Dreyblatt can't recall exactly where he read it, but anthropologists seem to suggest that the first primary string instrument preceded the first weapon. The implication here, appealingly idealistic, is that music is more primal than even violence, and that the first stringed bow generated a musical vibration long before it ever launched an arrow. Few composers exemplify the basic, fundamental, *original* aspects of music making as exquisitely as Arnold Dreyblatt. He strips everything down and builds it back up again from its auspicious beginnings, from a time when the first human being created a sound not for utility, but for the sake of art. With slight formal training in composition or traditional theory, his initial desire to make music came from an "amateur" interest in the physics of vibration and the raw materials of sound. From this starting point arose the fundamental question: what happens when I excite this string? The rest of his music grew from that premise, and his experiments in acoustics and instrument construction led him into an increasingly complex and subtle world. He discovered that what *does* happen is that a fragile system of *existing,* archetypical tones and rhythms reveals itself, a world he has been exploring ever since. Armed with a primal curiosity, a keen intellect and a rigorous, mathematical discipline, Arnold Dreyblatt started with one string, one tone, one beat and expanded from there, virtually creating his own personal microcosm of the entire history of music.

Dreyblatt asserts that in our current age, pure acoustic theory exists mainly in the specialized domains of instrument makers and universities. In ancient cultures, the knowledge wasn't so rarified, with musicians most likely building their own instruments and implementing their own personal tunings. Dreyblatt considers early stringed instruments such as the monochord in Greece and the ancient Chinese chi' in to have been mathematical, even mystical, measuring devices. The instruments were a means not only to a direct experience of sound, but also to an empirical experience of geometry. In 1977, he built a one-stringed instrument and began to experiment with mathematical proportion: "I passed through a sort of 'initiation', into understanding not only the construction of all string instruments but also the relations between such basic concepts as frequency, pitch, tension, length, division and multiplication." One of his first

experiments with instruments was an accident, when he broke a string on his contrabass and replaced it with unwound piano wire. The resulting harmonic overtones led him into ever more adventurous forays into instrument construction and harmonic complexity, and the prepared contrabass was to become the cornerstone of his Orchestra sound.

Having come from a background in film and video, Dreyblatt was interested in highly conceptual ideas surrounding images and electronics, particularly how images were controlled by waveforms. When he moved to Buffalo in the mid-70s, he studied video art with Woody and Steina Vasulka. Around the same time, Dreyblatt saw a concert by Alvin Lucier, which opened up the world of sound for him and led him to study with Lamont Young:

> "I first studied with La Monte in 1975-76, and during that time (and shortly after), worked as his tape archivist … I found a copy of the rare 'Selected Writings' in the filmaker Hollis Frampton's bookcase, and Hollis gave it to me. That was the beginning – I had seen Lucier concert (sine waves sounding a lone snare drum on a stage), and entered La Monte through his sine wave dream studies. I was doing some sine wave studies myself at the time, trying to find an acoustic correlation to the kind of electronic images I was creating with the Vasulkas in Buffalo."

Dreyblatt's time with Young was highly influential; it provided a suitable forum for in which to expand his high level of conceptual ambition. And although Young operated in an authoritarian way that eventually drove Dreyblatt into a different direction, the austere structure of Young's approach provided an appropriate impetus for him to consider founding his own orchestra. La Monte Young had co-founded the Dream Syndicate ensemble (also known as The Theater of Eternal Music) in the 60s with Tony Conrad, John Cale, Angus MacLise and Marian Zazeela. Dreyblatt was able to trace the lineage of some of the conceptual music he was studying back to the Dream Syndicate. Having heard the record Conrad made with arcane Krautrock alchemists, Faust, he had a Eureka! moment, deducing that Conrad had been central to the Dream Syndicate's sound. And back then, he says, that was the sound that blew everybody's mind:

> "The older generation was still talking about that experience. As La Monte's tape librarian, I started listening to the older mid-sixties tapes, in order to hear the sound that he was suppressing (for copyright reasons), and
>
> *shortly thereafter*
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> heard the Faust record and realized – that's it! That's that sound!

> And it's coming from Tony. The sound disappeared when Tony left the Theater of Eternal Music."

Fast forward to the early 90s, when fledgling avant label, Table of the Elements, along with Conrad, unearthed and released some of the early Dream Syndicate recordings (and let it be noted that Dreyblatt was instrumental here – he had secretly copied the recordings from La Monte Young's tape collection and subsequently shared them with Table of the Elements). The resulting release, *Day of Niagara*, was nothing less than the catalyst to what has since been called the "Big Bang of Minimalism."

It was an exciting time; the avant-garde was spilling over into popular music, and Table of the Elements was there at just the right time to "usher this thing in – bringing the music to the kids," Dreyblatt says. And it was the perfect context for Dreyblatt's work, because although he fit into the contemporary classical world and composed for classical musicians, he was more at home in this new scene, more at home with the audience. He admits that the systems he utilizes are highly academic, but the result is anything but, and people are often surprised by how euphoric and playful his music can be. Table of the Elements brought Tony Conrad and the Dream Syndicate recordings into the popular consciousness, and paved the way for artists like Rhys Chatham, who infused minimalism with a punk aesthetic, and Arnold Dreyblatt, who used his passion for acoustics and his keen, mathematical intellect to concoct his own unique brand of funky, ecstatic, lively, Minimalism.

In the early 80s, Dreyblatt studied with Alvin Lucier, and as he gravitated more toward the science of vibration and acoustics, he began to investigate how sound is comprised of frequency, energy and time, specifically the time right before a sound is generated. He saw signal comparison (i.e., tuning) as musical activity, and became captivated by how these conceptual principles, these "waveform signal events," might be applied to musical composition. He began to study composition, and with some illustrious company, which included Pauline Oliveros, Morton Feldman, and John Cage.

Shortly beforehand, in 1979 he had started the Orchestra of Excited Strings. "I liked the pun!" He said, and it's a particularly dense pun, referring to the physics terminology of "string excitation" or how "to excite a string". And of course, the sonic result can be, …exciting.

The formality of the orchestra was an appropriate structure for his work, but really, Dreyblatt did not apply the concept in any kind of conventional way. According to Tony Conrad, who sees the orchestra as an almost militaristic construct, Dreyblatt's use of the term was never about delivering a pre-written score, but more about the gesture – to the size of the sound, the size of the

engagement with his listener and the size of his ambition. Part of that ambition was to let the instruments take center stage and speak for themselves. It was literally an orchestra of strings, rather than musicians: “Instruments are not in service to their masters, something to be beaten into submission.” And Dreyblatt employs the instruments with an uber-technical vision, manipulating them with the precision of an engineer to extrude a sound that is uniquely and utterly his. With the orchestra, Dreyblatt institutes a highly regimented and rigid performance idiom, but what comes out of it is a dynamic, spirited, playful performance – one where the instruments and the tones that they create are doing the emoting. So the score, if you can call it that, is actually created by the music, and out of the rigor comes this *spirit*. It’s restricted, but not restrained, and the fact that Dreyblatt’s music is so formal and so free at the same time is actually a remarkable achievement.

Part of what makes his instrumentation so singular is the tuning, and Arnold Dreyblatt is all about tuning. For the last 200 years, the system of Equal Temperament, which divides the octave into twelve equal parts, has asserted its hegemony over Western music. It was devised for expedience and harmonic dexterity rather than the actual sound of the intervals (which are in fact, slightly out of tune). Dreyblatt saw Equal Temperament as “out of focus,” and he sought to base his own tunings on the naturally occurring tones in the harmonic series and Just Intonation, a tuning system based on whole numbers. It was a geometrical approach as opposed to a musical one, and the results were both surprising and artistically progressive: “I wasn’t good at hearing intervals; I needed references, so I needed a drone, and all of the tones I use are related to this one tone. I didn’t know chords, so would play a 1,3,5, or a 1,3,15 or 1,7,21, and all of I sudden I had these beautiful chords!” His approach stemmed directly from Conrad and Young, but he found his own inroads and his own subset of tones, which involved those that related to the fundamental as whole numbers. As a self-proclaimed empiricist, he was always looking for the most conceptual approach, and the most direct experience of acoustic purity. Working with drone and numbers, he wanted to see where it would it would lead him, and he sought to find more aesthetically pleasing tones. “I usually have the fundamental (1) tone droning the entire time, and the higher tones, which you can’t hear, are implied. It all began here, and I’ve been working with these chords all along…”

…And the effects can be stunning. Rhys Chatham finds some of the intervals Dreyblatt uses to be truly psychedelic: “when you play in the key of 63 and modulate to the key of 64, the difference is actually *felt* rather than heard. It’s as if the world were bending!” Chatham creates his entire melodic vocabulary by working with fundamental tones, generating the naturally just-intoned harmonics from a sea of thrashing guitars. Composer Phil Niblock, a fellow autodidact and a great influence on Dreyblatt, employs combinations of long microtones: “Phil will put two tones together and just listen to them *beat*.” Dreyblatt takes things a step

further by constructing instruments he tunes directly to Just Intonation, and by striking them in different ways he exposes the shimmering overtones and perfect intervals that express themselves against the original fundamental. It's the system *itself* that attracts Dreyblatt, and through it he coaxes the delicate, poetic harmonic intervals from vibrating strings. He's drawn by the geometry of it all, and by the "primary moment," the instant of excitation of a sound-generating source.

From the first featured compositions here, whether bowed, plucked hammered or struck, that primary moment is constantly in play. In pieces like "Partial Tones," "Basswires," "Nodal Excitation" and "Harmonics," the relentless, almost primitive striking of the contrabass seems repetitively simple, but it soon becomes apparent that the moment of excitation is far more complex and compelling than one might think, bringing a whole sonorous civilization into life. Entire melodies express themselves, creating an articulate interaction, and suddenly there's the score: written in the harmonics. It's a delicate construction, shimmering in and out of existence. Dreyblatt even calls it a now-you-hear-it-now-you-don't type of situation as the partial tones appear, evaporate and reappear. The tensions rise and sustain, never quite resolving, but expressing an irresistible liveliness – the vitality of a perfectly-in-tune world spinning at the end of a vibrating string. Dreyblatt is actually playing with perfection here. The mechanized ticking and just tones suggest impeccable methods and precise constructions, but Dreyblatt also allows in the sonic squawks, chair squeaks, coughs and even New York sirens that remind us this is also a profoundly human endeavor; in effect, we're experiencing two *parallel* worlds.

Dreyblatt recalls a conversation he had with Rhys Chatham before moving to Europe. Chatham said to him, "You're *dead* without drums!" The idea of a "beat" in Minimalism, specifically in a rock-oriented context, came initially from Chatham, but Dreyblatt uses beats in a different way -- a more swinging, polyrhythmic, dare-we-say *danceable* kind of way. The music contained a definite pulse from the beginning, which was primarily generated by the tapping or bowing of a string. From there, he built it up: "I just started with 'the one,' then I went from one to three, and incrementally I developed more complex rhythms." It wasn't until he moved to Europe in 1983 that he started to let the percussion in. He started with just the snare drum, proceeding with extreme care not to overshadow the delicate overtones. He gradually added more, including the Basque String drum and Hungarian gardon, which lend an intriguing layer of acoustic texture and a folk element to the compositions. In "Harptones," a more intricate texture is starting to emerge. As Dreyblatt adds the prepared miniature piano, the droning pipe organ and hurdy gurdy, all interact with the contrabass, creating more and more harmonic shifts and gloriously oscillating rhythms. By the time we get to "Propellers in Love," we're really starting to swing. The chiming

counter rhythms interact sublimely with the crisp percussion and harmonic showers. “Group Velocity,” which Dreyblatt composed for the opera, *Who’s Who In Central & East Europe 1933*,” is a dark, thumping, delightful piece: melodic, dramatic and thoroughly singular in its, well, multiplicity. It’s fully-fledged, hyper-rhythmic, highly danceable Dreyblatt.

By the late 80s and early 90s, Dreyblatt is diversifying immensely, conducting more workshops and collaborations with students, classical musicians and existing ensembles. He’s also composing for sound and visual art installations and starting to experiment with digital processing systems that result in some surprising funkiness. He composed “Star Trap” for a multi-media installation -- a madly swinging, mischievous piece of music. When Dreyblatt added horns to the ensemble they added a richer, deeper tone and an increased harmonic potential. Here, the sound of the horns is unmistakable, and it’s remarkable how elegantly each instrument sits within the droning fundamental tone and occupies its own, perfect space. Dreyblatt is also starting to compose in a more episodic way, epitomized by “Next Slide,” which contains an intentionally narrative structure. These are groaning, pulsing compositions, intricately woven and richly textured with ever-increasing sonority. “Lapse” encapsulates many of the elements of Dreyblatt’s compositions: the drone, the dance, the shuffle and the subtle interplay of tones and beats. One of the last compositions for the Orchestra of Excited Strings, it succeeds in exemplifying the logical but lively world of Arnold Dreyblatt, by now, spectacularly accomplished and wildly various.

The box set beautifully illustrates the growing complexity of Dreyblatt’s work – a complexity that expanded from singularities: from the one to the many; from the string to the orchestra; from the simple to the intricate. The more recent material rounds off the collection with an intriguing and charming collaboration between Dreyblatt and avant/rock/folk artists, Megafaun. The repetitive, droney banjo riffs, guitar, violin and mandolin combine elegantly with Dreyablatt’s signature contrabass tones. These pieces roll along with an immensely satisfying swing, resonant and mesmeric, but also knee-slapping and truly bizarre, mixing folk instrumentation with slightly dissonant combinations of tones and polyrhythms that amalgamate into some kind of demented barn dance or crazed hootenanny. It’s a contemporary triangulation of tradition, popular music and pure acoustic experience. The collaboration is a fitting conclusion to the box set, integrating Dreyblatt’s intentions to work with unconventional instrumentation and to create music as an experiential process.

Arnold Dreyblatt is exceedingly humble about his informal background in music, but the breadth of his accomplishments is staggering. His achievements reach across continents as well as cultural disciplines. He has not only established himself as an important American conceptual artist in Europe, but has also done valuable research on the Holocaust and Jewish populations, and made

significant contributions to numerous fields, including, art, sociology, music, video and computer media. In this much-deserved retrospective of his 35-plus year career in music and composition, we can trace his evolution from curious autodidact to acoustic pioneer who transcends genre and deserves to be counted as one of our most original contemporary composers. What he creates is unique because it springs from such an intensely personal and rudimentary mission that it could be nothing other than his own. By concerning himself with the most conceptual, analytical and *physical* aspects of music, he gradually constructed his musical system, which stemmed from a curious exploration into the mechanics of a vibrating string. His approach may have been academic and rigid, but the resulting music is a wonderful example of liberation through discipline -- it radiates an extraordinary vitality that he's not so much making as *finding*, with a fundamental desire to *hear* rather than impose. In turn, he uncovers a delicate realm of tones and rhythms, which play out a startling, poetic drama, creating a body of work that stands alone it its innovation. If the "Big Bang" spun new worlds into existence, and Minimalism evolved and splintered off into different orbits, Dreyblatt's is one where science and art never diverged. It's a world where the practical meets the ideal; the individual meets the archetypical; the tangible meets the abstract and the tactile meets the ethereal -- a place where human intuition and trial and error blissfully coexist with perfection.