

# “Silver Apples of the Moon”--Morton Subotnick (1967)

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Essay by Barry Schrader (guest post)\*



*Morton Subotnick*

Nonesuch Records released Morton Subotnick’s “Silver Apples of the Moon” in 1967. This was not the first release of electronic or electro-acoustic music on LP; works by other pioneering composers had been issued since the early 1950s. “Silver Apples of the Moon” was, however, the first electronic music composition specifically commissioned for LP release. It was also the first electronic music specifically designed to be released on a two-sided LP, and is, therefore in two parts.

Subotnick composed “Silver Apples” in his New York City studio on Bleeker Street in the West Village. This studio consisted of a Buchla 100 modular analog control-voltage “synthesizer” (Subotnick had commissioned Don Buchla to create an electronic music system and participated in its design), and two Ampex stereo tape recorders, only one of which was able to record. New York University’s Tisch School of the Arts had set up this private studio for Subotnick as part of his artist-in-residence agreement. He spent 13 months composing and recording the work after Jac Holtzman (founder of Elektra Records) offered Subotnick \$1,000 to compose an original piece for LP release on the Nonesuch label, which had been started in 1964. Created entirely by Subotnick in his studio, “Silver Apples” is an example of 20<sup>th</sup> century studio composition.

The first part (Part I) of “Silver Apples” (16:40) is, according to Subotnick, primarily concerned with the dimension of pitch. The work begins with a small group of pitches, which are repeated, but not always in the same order. Like much of Part I, these pitches are not necessarily tuned in the diatonic scale, and their duration seems random, not existing within a metric framework. Punctuating these phrases are bursts of high-pitched, short-envelope events. These create an unusual type of free-style counterpoint. Subotnick created some of these passages by using the Buchla 100’s capacitive “keyboard,” a series of 12 smooth-surfaced, touch-sensitive and pressure-sensitive plates. This design did not allow for the Buchla to be played in a traditional manner with an organ-style keyboard, but it did allow the composer to quickly slide a finger from one

plate to the other. This is how Subotnick created some of these initial passages of “Silver Apples,” which gives this and several other parts of the work an improvisatory feel. A great deal of Part I of “Silver Apples” is performed in this way, and while there is actually a lot of pitch repetition, it is a repetition of groups of pitch gestalts, not exact melodic repetition. Similarly, there is little in the way of metric rhythm in Part I; most of the rhythm is agogic. Part I is rather sectional, made by splicing different “takes” of performances together. The limitations of Subotnick’s recording capabilities in his Bleeker Street studio are evident in that there are usually only one or two ideas or layers of musical information present in any given section of Part I. Nevertheless, in terms of pitch manipulation and aggregation, Subotnick attains a high degree of variation and contrast. A structure is created by the progression of sections, but it is in no way a traditional structure, so that the listener is often surprised by what comes next.

Part II of “Silver Apples” begins with material that is very similar to that of Part I. Pitch, rhythm, and timbre are dealt with in the same ways. But the activity quickly decreases to randomly intermittent short events. Then, at 1:27, begins the most famous section of the work. As Part I is concerned primarily with the dimension of pitch, Part II of “Silver Apples” concentrates on rhythm: metric rhythm. This long section of pulsating beats, combined with splashes of touch plate-infused contrapuntal bursts, something that Subotnick has called “a sort of Post-Webern bebop,” lasts until 9:15, taking up most of the second part of the work. The construction of this metric section is attained by the accretion of repeated pitch and metric patterns. Here Subotnick demonstrates the possibilities of the Buchla 100 in that he was able to create multiple elements simultaneously and also alter certain dimensional qualities, particularly duration and timbre, in real-time, thus overcoming the limitations of his recording gear. This part of “Silver Apples” is the most unusual for its time. Most non-commercial electronic studio music, like most serial and post-serial music of the period, religiously avoided metric rhythm and repetition of pitch structures. Subotnick’s use and obvious joy in disregarding the status quo comes through in this very dance-like section. This section also demonstrates the use of the Buchla 100’s sequencer module, one of the earliest, which allowed Subotnick to create repetitive pitch and rhythmic patterns in real-time. This early use of a sequencer (which predates Moog’s version of the device) undoubtedly influenced later electronic works by other composers. After 9:15, the music of Part II returns to the nature of the material in Part I. Slowly, the activity of the music decreases, events becoming more sparse and isolated, until the music seems to disappear into the ether.

Timbrally, most of the music in “Silver Apples” utilizes raw waveforms (sine, square, sawtooth) and white noise; all of these were available on the Buchla 100 system. Subotnick does create some more complex timbres by use of amplitude modulation and frequency modulation, and the white noise is often filtered. But, overall, the timbral palate in “Silver Apples” doesn’t stray too far from what can be heard in other contemporary and earlier electronic music works. Initially, electronic music composers thought of raw waveforms as being the most revolutionary timbres possible as they sounded nothing like traditional instruments. Slowly, however, over the late 1950s and 1960s, composers became increasingly interested in creating more complex electronic

timbres, and you can hear this pursuit in certain sections of “Silver Apples.” Still, “Silver Apples” remains grounded in relatively elemental timbral territory; this was an area that Subotnick would develop much more thoroughly in later works.

“Silver Apples of the Moon” remains a landmark work in the history of electronic music not only because of how and what Subotnick composed in the piece, but also because of the attention it received. While there had been several commercially released albums of electronic and concrete music prior to 1967, none of them had enjoyed the wide distribution, editorial notice, or popular acceptance of “Silver Apples.” Subotnick had envisioned a new sort of 20<sup>th</sup> century chamber music, one composed for the recorded medium and intended to be heard by listeners in their own homes. In his view, the studio composer, just like the studio visual artist, could create a work that could be directly disseminated to the public without any intermediaries. As Subotnick has stated, “The composer is creator, performer, and audience, all at once.” “Silver Apples of the Moon” is, then, the first work intended to function and be thought of in this way, and it opened up new possibilities for composing and distributing electronic music.

*Barry Schrader has been acclaimed by the “Los Angeles Times” as “a composer born to the electronic medium,” and his works have been presented throughout the world. He is the author of introduction to “Electro-Acoustic Music,” and the founder and first President of the Society for Electro-Acoustic Music in the United States, receiving their Lifetime Achievement Award in 2014*

\* The views expressed in this essay are those of the author and do not necessarily represent the views of the Library of Congress.