EXHIBIT Z

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

RALPH VARGAS AND BLAND RICKY ROBERTS,

Plaintiffs,

v.

04 CV 9772 (WHP) ECF CASE

PFIZER INC., PUBLICIS, INC., FLUID MUSIC, EAST WEST COMMUNICATIONS, INC., AND BRIAN TRANSEAU P/K/A "BT",

Defendants.

SUPPLEMENTAL DECLARATION OF DR. RICHARD BOULANGER

I, DR. RICHARD BOULANGER, declare as follows:

- 1. I have been retained by Brian Transeau ("BT") as an expert witness in the above-captioned litigation. I have previously submitted an expert report, dated January 31, 2006; a rebuttal report, dated September 21, 2006; and a declaration, dated September 22, 2006. My qualifications and expertise are presented in my initial expert report and I do not repeat them here. In my first report, I concluded that the audio and source materials in BT's drum beat *Aparthenonia* are unique and original, and in my rebuttal report I responded to Plaintiffs' experts and further bolstered my opinion that *Aparthenonia* is original.
- 2. I reviewed the following materials in making my analysis discussed in this declaration:
 - i. Compact disc labeled "BT New Aparthenonia 11.16.06" (which I have been informed is a copy of the disc created by BT on November 16, 2006); specifically I looked at the following from that disc:

File: "Nu Aparthenonia Final w-TC.aiff"

• Folder: "BT Reason Loops"

- ii. Aparthenonia from the Breakz from the Nu Skool CD;
- iii. Bust Dat Groove (w/o ride) ("Bust Dat Groove") from the album Funky Drummer Vol. II

Each of the audio files I examined are contained on the compact disc attached as Exhibit A to this declaration: Track 1 is the recreated Aparthenonia, "Nu Aparthenonia Final w-TC"; Track 2

is the original *Aparthenonia* from *Breakz from the Nu Skool*; Track 3 is *Bust Dat Groove* (*w/o ride*) from the album *Funky Drummer Vol. II*; Track 4 is "New Aparthenonia Hat" from the folder "BT Reason Loops"; Track 5 is "New Aparthenonia Snare" from the folder "BT Reason Loops"; Track 6 is "New Aparthenonia Kick" from the folder "BT Reason Loops"; and Track 7 is "BT New Aparthenonia" from the folder "BT Reason Loops."

- 3. I have been asked to evaluate the audio file named "Nu Aparthenonia Final w-TC." I have been asked to evaluate the closeness of the match between this file (which I will refer to throughout this declaration as "recreated Aparthenonia") and the original *Aparthenonia* audio file from the *Breakz from the Nu Skool* CD. Based on my listening, waveform, and spectral analysis, I conclude that the recreated Aparthenonia is an exceptionally close match to the original *Aparthenonia* and clearly is a much closer match than *Bust Dat Groove* is to the original *Aparthenonia*.
- 4. I was also invited to examine the source audio materials BT used to make the recreated Aparthenonia (the files located in the folder named "BT Reason Loops"). Based on my review of these independent source materials, it is clear that the original *Aparthenonia* was created independently using only the sound files in Propellerhead Reason 1.0 and without copying *Bust Dat Groove*. BT's ability to recreate a drum track that is virtually identical to the original *Aparthenonia* using these sounds from the Propellerhead Reason 1.0 software sound library, leads me to conclude that BT had the ability to, and did in fact, independently create the original *Aparthenonia* using only the sounds included in this commercially available software and not by copying or "sampling" *Bust Dat Groove*.
- 5. For purposes of the analysis described in this declaration, I subjected the tracks to the same waveform (time domain) and spectral (Fast Fourier Transform "FFT") analysis that I performed on the original *Aparthenonia* and *Bust Dat Groove* tracks, which is described in my initial and rebuttal expert reports.
- 6. Specifically, I compared the waveform and spectral data of the original *Aparthenonia* to the waveform and spectral data of the recreated Aparthenonia, and I found them to be exceptionally close matches. My comparison of the waveform and spectral data can be found in Figures B6A to B6Q (attached as Exhibit B to this declaration).
- 7. The two tracks are nearly identical and in my opinion, the recreated Aparthenonia is as close a match as could be made without digitally copying the original. The fact that the waveform and spectral data of the recreated Aparthenonia are not a perfect match to that of the original *Aparthenonia* demonstrates the sensitivity of the FFT software to the most minute and subtle differences between two audio files. Two separate audio files will not have perfectly matching spectral data unless one is a digital copy of the other. Because even the smallest differences resulting from digital signal processing and the underlying algorithms will show up in the FFT analysis, it is essentially impossible to create two separate audio tracks that would produce perfectly matching waveform and spectral data unless they were digitally copied. That these two tracks have slightly different waveform and spectral data proves that the recreated Aparthenonia is not a digital copy of the original *Aparthenonia*.

- 8. Whereas the original *Aparthenonia* and the recreated Aparthenonia are virtually identical, my comparison of the waveform and spectral data of the original *Aparthenonia* to the waveform and spectral data of *Bust Dat Groove* showed many blatant and obvious differences (I have included in Figures B8A to B8P, data from my original report which exemplifies these clear differences.) I have confirmed that there is a much greater degree of difference between the original *Aparthenonia* and *Bust Dat Groove* than there is between the original *Aparthenonia* and the recreated Aparthenonia.
- 9. I also compared the waveform and spectral data of the recreated Aparthenonia to the waveform and spectral data of *Bust Dat Groove*, and I concluded that these two tracks reveal the same degree and number of blatant and significant differences that are present in the comparison of the original *Aparthenonia* and *Bust Dat Groove*. I highlight a few of the differences between the recreated Aparthenonia and *Bust Dat Groove* in Figures B9A to B9L. In fact, every difference between the original *Aparthenonia* and *Bust Dat Groove*, as I identified in my initial and rebuttal reports, can also be identified when comparing the recreated Aparthenonia to *Bust Dat Groove*.
- 10. In conducting the above analysis, I looked at the waveform and spectral data of the recreated *Aparthenonia* and *Bust Dat Groove* as a whole, and I looked at the data on a drum strike by drum strike basis, just as I did in conducting my analysis for my initial and rebuttal reports. I searched for any matches between the drum strikes of the recreated Aparthenonia and *Bust Dat Groove*. There are none. None of the drum strikes not the hi-hats, not the snares, and not the kicks none are a match, regardless of where the drum strikes occurred in the pattern. Figures B10A to B10F show some of these differences. Accordingly, it is my opinion that the recreated Aparthenonia used no material from *Bust Dat Groove*.
- 11. Moreover, the files in the "BT Reason Loops" folder evidence the methodology BT used to recreate Aparthenonia, and show that no sampling of the sounds from *Bust Dat Groove* were necessary to make the recreated Aparthenonia.
- 12. The recreated Aparthenonia is such an exceptionally close match to the original *Aparthenonia* that it leads me to conclude that the recreation and the original were made using the same methodology. The fact that BT created such a close match to the original Aparthenonia without copying *Bust Dat Groove*, shows that BT had the ability to and did create the original *Aparthenonia* using only the drum sounds from the Propellerhead Reason 1.0 sound library and without copying or "sampling" the drum sounds from *Bust Dat Groove*.

I declare under penalty of perjury under the laws of the United States of America that the above statement is true and correct. Executed this 1st day of December, 2006 at Somerset, MA.

Dr. Richard Boulanger

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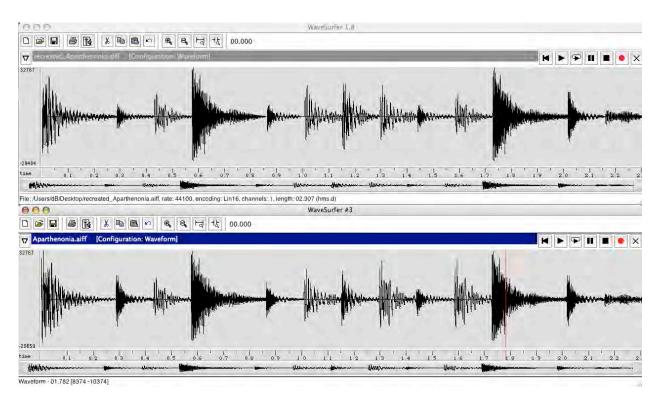
EXHIBIT A



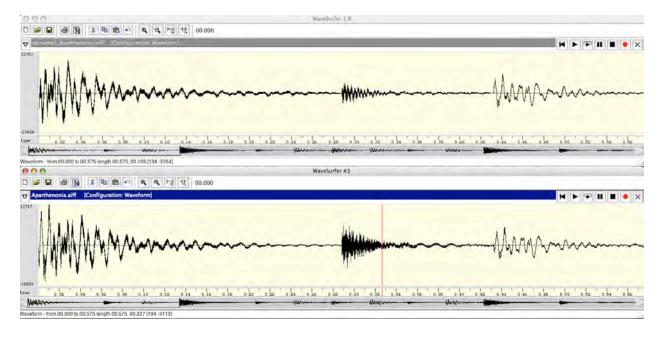
EXHIBIT B

BOULANGER SUPPLEMENTAL DECLARATION <u>EXHIBIT B</u> FIGURES B6A – B6Q

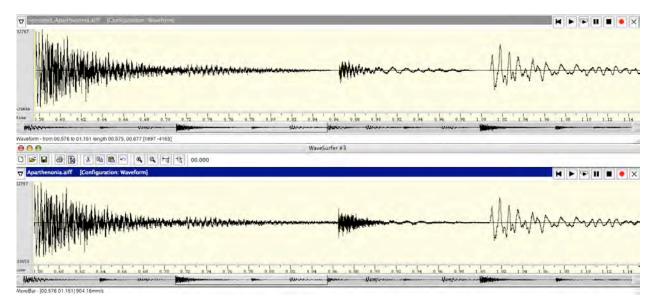
To illustrate some of the exceptionally close matches between the original *Aparthenonia* and the recreated Aparthenonia, figures B6A – B6D show similar waveshapes for the entire duration of the patern (B6A); similar waveforms when zooming in on the beat1, 2, 3, and 4 of the pattern (B6B, B6C, B6D, B6E); similar pitch and formant contours (B6F, B6G); and similar sonograms (B6H).



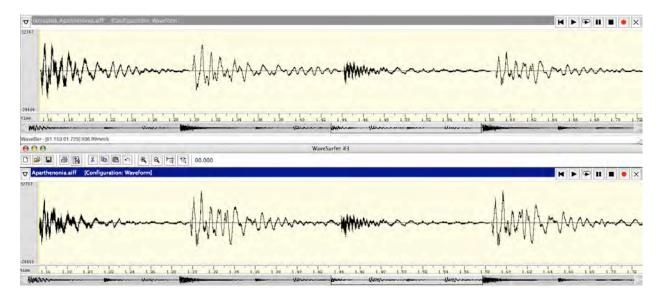
B6A: B6a_WS_Bar1_WaveformComp



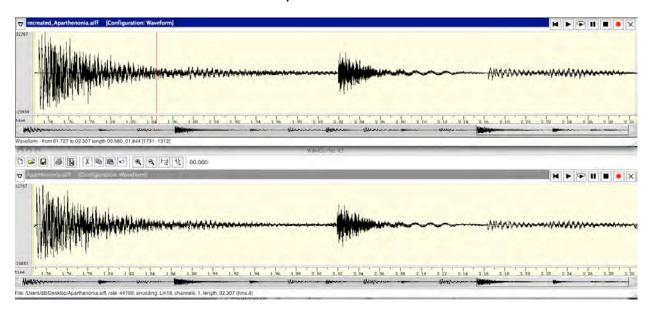
 $B6B: B6b_WS_Beat1_WaveformCompZoom$



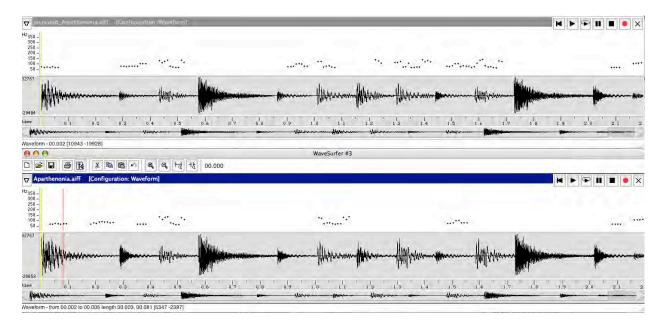
B6C: B6c_WS_Beat2_WaveformCompZoom



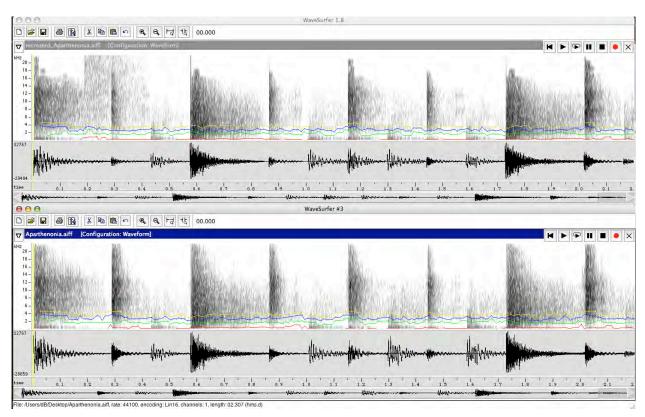
B6D: B6d_WS_Beat3_WaveformCompZoom



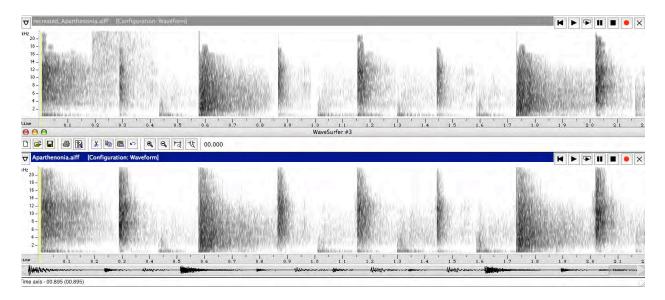
B6E: B6e_WS_Beat4WaveformCompZoom



B6F: B6f_WS_PitchComp

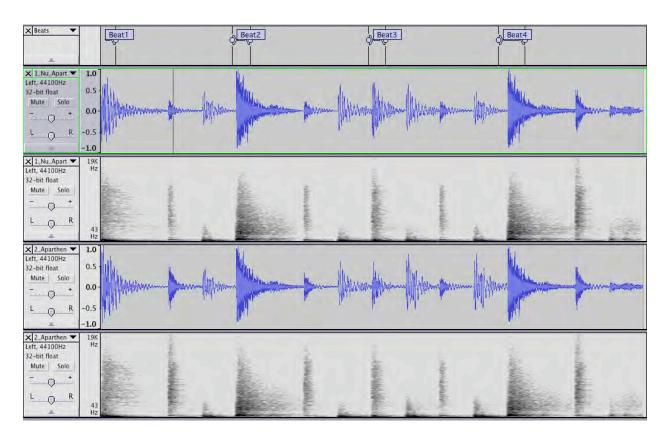


B6G: B6g_WS_FormantComp

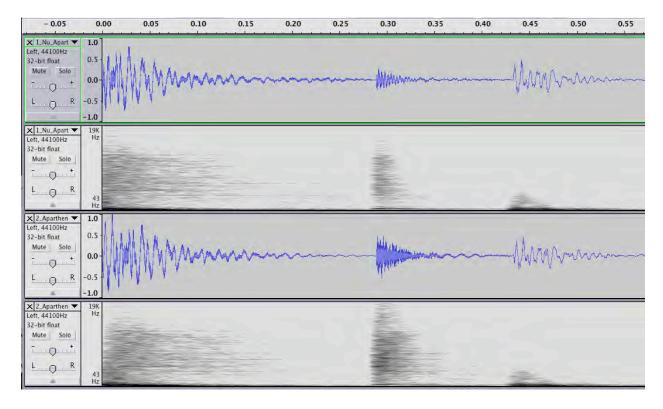


B6H: B6h_WS_SonogramComp

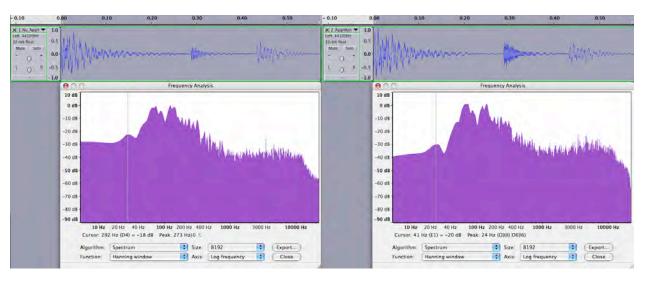
Further, figures B6I – B6Q show remarkable close spectral matches when performing FFTs on the individual beats of the pattern.



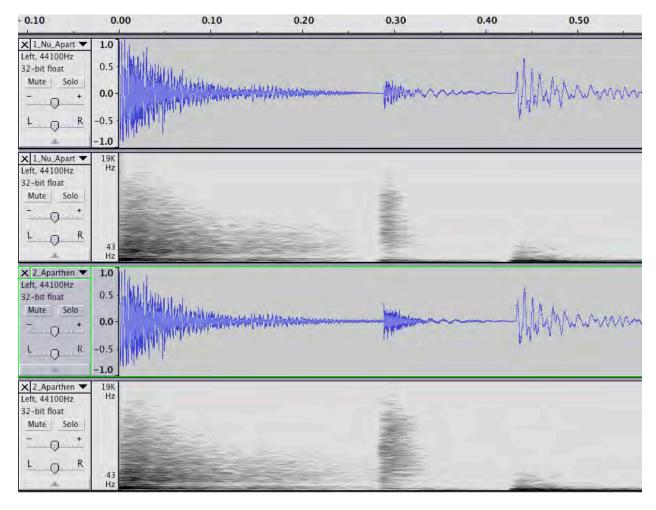
B6I: B6i_AU_WaveformSonogramComp



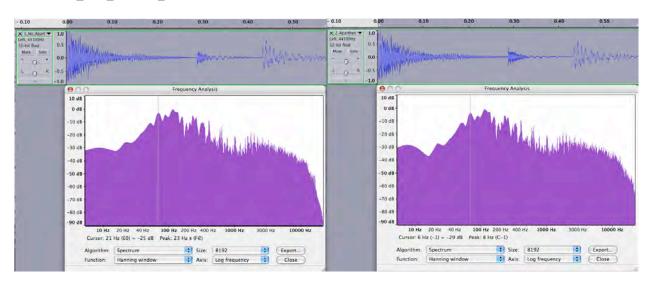
B6J: B6j_AU_Beat1_WaveSono



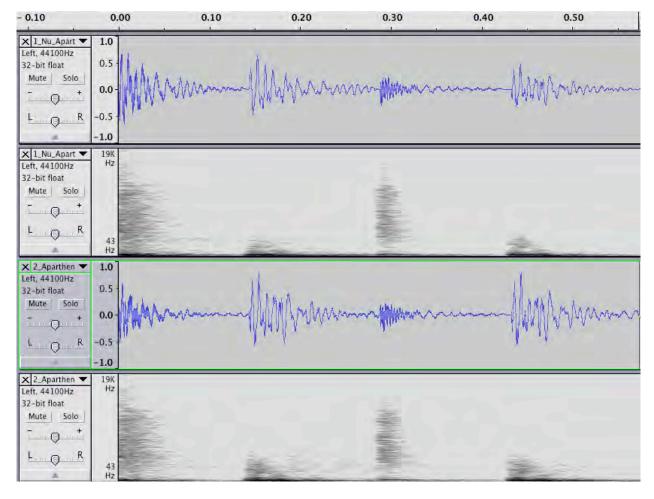
B6K: B6k_AU_Beat1_WaveSpec



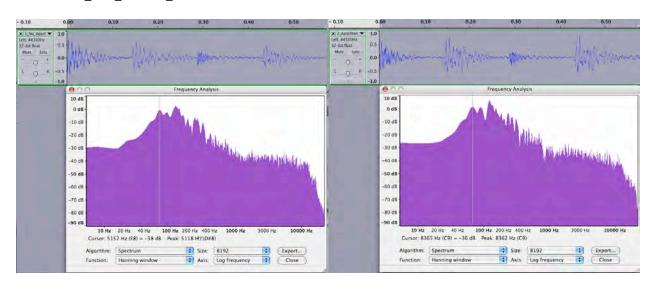
B6L: B6l_AU_Beat2_WaveSono



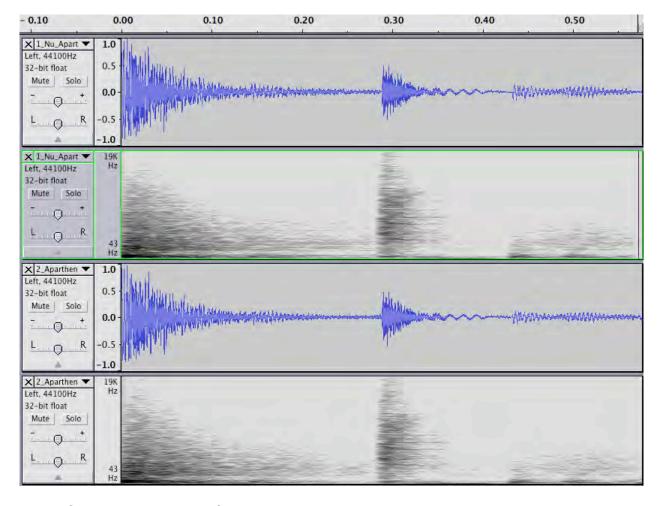
B6M: B6m_AU_Beat2_WaveSpec



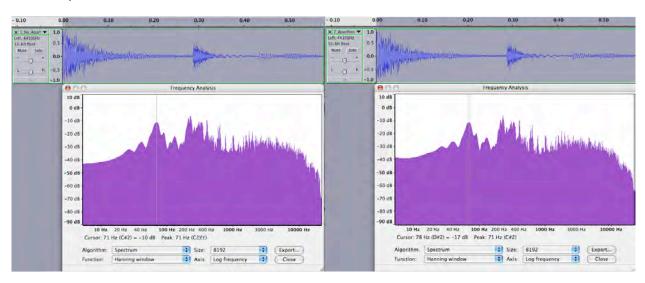
B6N: B6n_AU_Beat3_WaveSono



B6O: B6o_AU_Beat3_WaveSpec



B6P: B6p_AU_Beat4_WaveSono



B6Q: B6q_AU_Beat4_WaveSpec