A Portfolio of Compositions with Commentary and Spectral Research

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Abstract

Prelude to a Composition by Research Thesis

Shall I compare thee to other research?
Thou art less work and of less gen'ral use,
Or so say musicologists who perch
On piles of books which vex them and confuse.
But truth be told all this does have an aim
Involving guiding listeners through a piece
Even if you might call their ear "untrained'And so my work, in part, consists of this:
Spectrally analysing overtones
And the bass clarinet's multiphonics;
A pitch hierarchy using microtones
Decides a note's relation to the tonic.
If asked what my research topic may be,
I simply reply, 'my own harmony.'

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USB Flash Drive

- Hallowed Be Thy Name (Workshop Recording)
- You Can Run
- Minchia! (Concert Recording)
- Spectral Analyser.pd

Research Outline

Prior to this portfolio, my work focussed on developing harmony that uses microtones in a way that is structurally functional. The exact manner in which this is achieved has evolved over time and continues to do so. The music of Kaija Saariaho in particular had a strong influence on the direction I proceeded to take as it made me consider the relationship that timbre can have with harmony, and with form in general. I became interested in how a single sound could generate scales, chords, gestures and even structure on a larger scale.

'The more I experimented with alternative tunings, the more it appeared that certain kinds of scales sound good with some timbres and not with others. Certain kinds of timbres sound good in some scales and not in others.' This quote from William A. Sethares stems from the beginnings of his research in Psychoacoustics and sensory consonance, which in turn would help with my initial approach to this portfolio. Ultimately I wanted to create novel-sounding harmonic schemes originating from specific sounds for each piece and thus giving them unique and cohesive soundworlds. I felt this effect could be furthered by deriving gestural and structural qualities from these sounds, therefore linking all of these elements together to some degree.

It is important to me that the developmental trajectory of a piece of music is perceivable in order for it to remain engaging.² This portfolio seeks to expand upon the age-old concept of deriving several aspects of the music from minimal material and how it can help achieve this clear trajectory, while still allowing for music with contrast. The application of Sethares's research in sensory consonance aims to add further control of the listener's experience in this regard. I refer also to the work of Paulina E. Sundin, whose music has similar aims.³

¹ Sethares, Tuning, Timbre, Spectrum, Scale (London: Springer-Verlag, 1998), xi.

² Nicholas Temperley. "development." The Oxford Companion to Music. *Oxford Music Online*. Oxford University Press, accessed August 30, 2016,

http://www.oxfordmusiconline.com.ezproxy.york.ac.uk/subscriber/article/opr/t114/e1915. The Oxford Companion to Music defines 'development' as 'a process by which musical materials, generally melodic themes, are changed and extended'; the term 'developmental trajectory' as used by myself simply refers to the course that this process takes.

³ Sundin, "Re-inventing Harmony in Electroacoustic Music: A commentary on my Recent Music," (doctoral thesis,

I wished to explore the application of these ideas in a variety of contexts; music using acoustic instruments, live electronics, acousmatic music and predominantly improvised music. The pieces included in this portfolio display all of the above, and the approach is adapted accordingly. Besides Sethares's research and Sundin's composition, these approaches do not knowingly borrow very directly or stand with total comparably to other people's work. That being said, they still form a part of the larger canon of spectral music, which features many composers and many more differing approaches still.

Of course homage must be paid to the pioneering work in France by the likes of Grisey and Murail four decades ago. While it is perhaps impossible to keep up with the methods composers use to write each and every piece, and indeed these often evolve from one piece to the next, I would cite an at least aesthetic similitude (if not to some extent a methodological one) to the music of composers such as Dai Fujikura, Patricia Martinez and Simone Movio; these three in particular are composers whose work I hold in great regard. Another is Panayiotis Kokoras, whose concept of 'Holophony' has parallels with my attempts to create cohesive soundworlds in all of these pieces, and indeed his music has had a great influence on the pieces I have written since this folio.⁴

With regards to improvisation, the relevant work discussed in this thesis, *Minchia!*, in fact signified my first serious engagement with the concept in a contemporary art music context. I have since become familiar with the work of Iancu Dumitrescu and Ana-Maria Avram, whose music often combines spectral music with improvisation. My impression suggests that their approach to this differs from mine, and indeed is given its own name; Hyper-spectralism.⁵ Certainly, however, there must exist some common ground.

There are many ways in which one can define spectral music, and many composers whose

University of Huddersfield, 2010), 13.

⁴ Panayiotis Kokoras, "Home," *Panayiotis Kokoras*, date of publication unknown, accessed March 1, 2016, http://www.panayiotiskokoras.com/. Kokoras says of Holophony that 'each independent sound (phonos), contributes equally into the synthesis of the total (holos). Thus, Holophonic musical texture is best perceived as the synthesis of simultaneous sound streams into a coherent whole with internal components and focal points.'

⁵ Guillaume Ollendorf, "Iancu Dumitrescu," *CTM Festival*, January 2016, accessed 2nd September, 2016, http://www.ctm-festival.de/archive/all-artists/f-j/iancu-dumitrescu/

work may or may not fit into the category, depending on the definition. One musical concept that predates spectralism, but has certainly been important to its development, is the prominent consideration of timbre and overall tone colour; my music is certainly growing in its sensitivity to these features. There are many important composers whose music is often said to also be rich in this sensitivity, some of whom I would like to mention as being influential to my composition and the aims of this folio; namely Takemitsu, Messiaen, Ravel and Debussy. These composers have all succeeded in writing music which feature engaging soundworlds, memorable for their harmonic and timbral colours. Ultimately, I hope to at least take steps towards achieving the same.

Acknowledgements

I would to take this opportunity to acknowledge the input of all the performers with whom I consulted and collaborated during both the research and composition processes; without their time, skill and insight, this could not have been completed.

In alphabetical order they are: Gaia Blandina, Adam Bonser, Patrick Burnett, Desmond Clarke, Jennifer Cohen, Tomos Dylan, Andrea Mancianti and Will Ozard.

Author's Declaration

I hereby declare that the work in the thesis is my own and has not been submitted for examination at this or any other institution for another award. All sources are acknowledged as references.

Pure Data Patch and Spectral Analysis

Throughout this thesis there is mention of a patch programmed in Pure Data which was used to perform any required spectral analysis. I shall briefly describe the inner workings which achieve its functionality. A copy of the patch itself is included on the attached USB flash drive.

The patch was programmed using Pure Data's *Pd-extended* application, which has a wider library of in-built objects. Other than those that come ready with *Pd-extended*, no external libraries or patches were used. The patch allows users to import a lossless format audio file from their hard drive and trim it down to a specific range of audio samples,⁶ which constitutes the sound to be analysed. An FFT is performed on the selected sound, with block size 4096 and four overlaps. The blocks have a raised cosine windowing function applied to them.

The core purpose of the patch is to find peaks in a given sound's spectrum and provide their frequencies and corresponding amplitudes. This function is handled by the *flatspace* library's *pique* object, which takes an array of FFT data as its input and outputs the desired information. The *pique* object has an in-built interpolation algorithm for the estimation of the exact frequencies of the peaks and so this effort was saved. The maximum number of peaks was manually set at 35. This is because I felt this would be a high enough number to capture all the peaks with remotely significant amplitudes for all of the samples. This proved to be true except in perhaps one or two cases of very low-pitched, spectrally dense sounds. The rest of the patch's function serves simply to present the desired data in a form that is easy to read and manipulate.

The purpose of the data was to derive microtonal pitch sets which can be used harmonically in the pieces which constitute the folio. The exact manner in which this is done is discussed in the

⁶ In this case the term 'audio samples' is used as in signal processing and refers to values obtained via the conversion from a continuous signal to a discrete signal, where N samples = sample rate * time. All other uses of the word 'sample' in this thesis are as in sound analysis, sound design or electronic composition and refer to a recorded sound used as raw material for one of these processes.

⁷ Full documentation for the *pique* object proved impossible to find, but the results of the first six analysed samples were cross referenced with those obtained using other analysis software (namely Sonic Visualiser and Michael Klingbeil's SPEAR) and were found to be very comparable.

commentaries for each piece, but some further aspects of obtaining the initial data should be addressed here.

In order for the pitch sets to be perceived as harmony, a certain amount of consistency and stasis is required for this sense of harmony to be established. Therefore the recorded data is taken from three snapshots across each sound sample; one at the beginning, one in the middle and one at the end. The spacing of these snapshots is relative to the length of the sample being analysed. The number three was chosen for practical reasons; firstly, it produces a manageable amount of data while still providing multiple readings; secondly, it is less likely that there will be issues in cases where the samples are very short.

These snapshots are treated differently in deriving the final data used for harmonic material in each piece. *Hallowed Be Thy Name* uses the mean values of each reading as the final data for a given sample. Any peaks not present in all three readings are not considered significant enough to be part of the core of the sound and are omitted. If this remaining data is used to attempt an additive resynthesis of the original sample, while it will be recognisable, the lack of any kind of movement sounds very artificial. This clearly is a compromise, but a necessary one given how pitch was to be treated in this piece; static pools of pitches were desired for each section, and the source samples themselves are largely quite static in character, to lend to this concept.

For *You Can Run*, the evolving nature of the spectra were desired for harmonic exploration, so the three snapshots are individually treated as final pieces of data with no further averaging. This is in part due to how short the source samples were; averages of the beginning, middle and end of each couldn't reliably be taken. The data did predominantly look as expected, however. Each pitch set typically evolves into the next gradually within a section of this piece, but this effect could be achieved by taking only three snapshots and extrapolating the rest by ear; taking any more would have been redundant.

Minchia! uses a combination of both the other pieces' methods. The concept with this piece

was again to examine the evolving nature of the spectra, but because the sample was long enough multiple reading could be taken across it, each consisting of three snapshots. In the same way as *Hallowed Be Thy Name*, those snapshots were averaged for each reading to provide the most important pitch information. The averaging in this case is somewhat less of a compromise than *Hallowed Be Thy Name*, as the source material is in fact a recording from an analogue synthesiser and so has less of the fluctuation associated with human players.

<u>Hallowed Be Thy Name – Commentary</u>

Introduction

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Hallowed Be Thy Name deals with the subject of difficult and destructive relationships between human beings. It was necessary for different sections in the piece to present contrasting moods and characters while still summing together to form an overall structure throughout which the music develops causally. This had to occur in tandem with a further aim; the piece should make use of a pitch hierarchy that features all 24 notes of the quartertone chromatic scale (i.e. 24-tone equal temperament, or 24-TET) in a way that is structurally functional and, furthermore, is influenced by the instruments themselves. To understand the capabilities of the instruments and to ensure the music is playable, given the potential for extensive use of microtones and extended techniques, four players were consulted with for workshops, general advice and feedback on the score.

I wanted to exploit all the timbral possibilities of the four instruments, but to try and link these to the harmony (or for the harmony to result from them) so that timbre, and the gestures to which some of these timbres are inherently connected, could also be used as structure-developing factors. This decision to try and derive the harmony from aspects of timbre led to a spectrally-influenced route, as with the subsequent two pieces in this portfolio, and the need to conduct some research.

Modes

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The four instrumentalists were individually taken to a studio where samples of them playing were recorded for analysis. The samples taken were designed to cover the full range of sounds known to the players and myself that could be made with the instruments, several hundred overall. More than

two hundred of these were then analysed using the patch I programmed in Pure Data, giving the frequency of the most prominent partials of each sound and their relative amplitudes.

By rounding each frequency to match that of the nearest quartertone in 24-TET (with A at 440Hz), and then omitting repeating pitch classes, each of these sounds could produce a mode (see *fig. 1.1*). Only five sounds' modes were used in this piece, so that each lettered section would have an individual mode to use as its harmonic basis, except the final section which reuses the mode from section A. The term 'parent sound' shall be used to refer to the specific sound or playing technique from which a particular mode has been derived, and shall be used throughout all commentary included in this paper.



fig. 1.1 - An example of how a sound's spectrum is turned into a mode. Here the parent sound is a staccato Eb played in the Bass Clarinet's clarion register (sound 33, appendix 3), which yields a seventeen-note mode. The symbol '\neq' is used to denote a quartertone sharp, while 'd' is used for a quartertone flat.

Chord Function and Pitch Hierarchy

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The five modes chosen, of course, have not had a prominent existence over the course of music's history and will therefore be unfamiliar to a listener. This means that, rather than there being an already-established hierarchy which informs how each pitch class might function relative to the rest, the piece must construct one itself. Instead of choosing a rule for the formation of chords based simply on a pitch's ordinal position in a the mode, for example using every other note from a given starting point in a major or minor key to form triads, I wanted the chords and an associated pitch hierarchy to derive from all of the analysed sound samples somehow. That way the chords would result from the full range of sounds that the instruments could make rather than just the one parent sound. This also creates an over-arching harmonic context for the five modes to exist and develop within, tying them together.

The most prominent four partials of every analysed sample were taken and labelled with a number according to their position in the harmonic series. If a partial was inharmonic, the letter X was used, regardless of it's frequency. This creates a four-digit description of each sample, for example: the most prominent partials of the flute playing middle C mezzo-forte (sound 3, appendix 1) are 2, 1, 6 and 3. The numbers are rearranged in ascending order to give 1, 2, 3, 6. These four numbers correspond to the four pitches which occur at the equivalent scale degrees in the mode and make one of the chords which can be used (see *fig. 1.2*). It was decided that four-note chords would be used because there are four instruments in the ensemble, meaning this option would afford the most harmonic colour whilst still allowing full chords to be played (without constantly resorting to multiphonics).

Many of the sounds share the same first four partials, but overall there was considerable variety, leading to a total of 64 different four-digit combinations that can be used to form chords in

any mode (all of these and their source sound can be seen appendix 6). They are the equivalent of chord symbols, and shall be referred to as such.

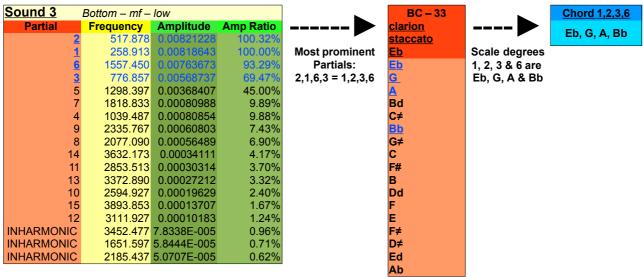


fig. 1.2 - The spectrum of the flute playing mezzo-forte at the bottom of its range is used to derive a chord in the mode shown in fig.1.

Should one of the numbers in the chord symbol be larger than the total number of pitches in the mode it's being applied to, the count simply wraps around and continues from scale degree one. For example, the chord 7,10,16,18 in the seventeen-note mode shown in *fig. 1.1* is $G \neq B$, Ed and Eb. Should one or more of the four most prominent partials of a sound be inharmonic, the X in the chord symbol may denote any pitch in 24-TET regardless of whether or not it occurs in the mode being used. This decision is to reflect the nature of inharmonicity within a context largely dominated by the harmonic series, by comparing it to chromatic harmony.

Certain numbers come up far more frequently than others in the list of chord symbols shown in appendix 6. For example, the number 1 is very common as one might expect; most of the sounds analysed contained their fundamental as one of the four most prominent partials. This affects the likely distribution of each scale degree of a given mode in a passage of music; if most of the possible chords contain scale degree 1, then the pitch class occurring on that scale degree will probably appear very frequently unless the chords are specifically chosen to avoid this. The general

trend is that the higher the scale degree, the less frequently it features in the list of possible chords, which neatly reflects the fact that the pitches associated with higher scale degrees are less prominent in the parent sound. This is not always the case, however. For example, the third scale degree is much more common than the second, due largely to a feature of the clarinets' spectra whereby the odd numbered partials are much more prominent than the even partials, especially in lower registers.

The spectra of the four instruments in the quartet affects the distribution of each scale degree in the list of possible chords, which in turn influences the pitch hierarchy, but doesn't directly establish it; this is because chords can be chosen, and others ignored, to deliberately convey a more even or skewed distribution of pitch classes. The listener can not hear the list of potential chords, only the chords which are actually used. Secondly, the list doesn't determine how pitches might function relative to each other, only how frequently they might occur. Just because a pitch class occurs more frequently than another does not guarantee it will appear as more functionally important.

Consider the case of a pitch class which occurs several times non-consecutively in the inner parts of a chord over the course of a section, compared to another pitch class which is temporarily used as a pedal note, one which is regularly doubled in octaves or one which is consecutively repeated in the same register. The latter three cases will all command more attention than the first, even if they are heard for less time overall.

A similar contextual-sensitivity applies to establishing the roles specific chords play in a section; Typical location in a phrase, frequency of occurrence and consistency of voicing are all factors that influence how prominently a chord is perceived to the listener. The combination of this and the regularity with which one chord is heard in a specific position relative to another is what creates pitch hierarchy in *Hallowed Be Thy Name*. Therefore, harmonic functionality is not completely given by the analysed sounds alone, but requires the music in each section to provide

the context which creates its own pitch relationships. That being said, the harmony is certainly derived from these sounds and is definitely specific to this instrumentation, because both the possible modes and the list of possible chords would vary with alternative instrumentation.

Gesture, Character and Interval Restriction

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The five modes were chosen because they complement the desired expressive characteristic of each section, not just in terms of harmony, but also timbre and instrumentation; not only did the inherent intervallic qualities of the mode need to suit the mood of a section, they needed to lend themselves to the gestures that were to be used - a figure consisting of descending stepwise movement would not work well in a mode whose prominent pitches did not feature such an interval between them.⁸ These pitches should also allow for the desired register of the instruments to be used in cases where this is very specific; if you want to use the harsh sound of the very bottom of the bass clarinet's range to highlight certain pitches in the hierarchy, you don't want these pitches to lie too far outside the range of Bb-Eb or so.

The parent sound too needs to complement the mood of each section and the gestures that will be used. It will feature prominently in the section using its mode because each section is essentially an exploration of certain qualities of the sound. Some of these qualities are only made apparent by spectral analysis (e.g. the pitch classes contained in the mode, although they are rounded), while others might be more obvious at face value. To further convey this, chord 1,2,3,4 is used as the primary chord of each section because it contains the four most prominent pitch classes

⁸ Edson Zampronha, "Gesture In Contemporary Music On The Edge Between Sound Materiality And Signification," *TRANS* 9 (2005) 17: para. 12, accessed August 30, 2016, http://www.sibetrans.com/trans/articulo/181/gesture-in-contemporary-music-on-the-edge-between-sound-materiality-and-signification. Zampronha writes that 'with regard to musical composition, gesture comes to be understood as a sound materiality movement that generates a delimited configuration recognizable by listening as a unit. This unity is closely associated to signification inside a work.' This definition is cumbersome, but perhaps necessarily so given the abstract nature of the subject. Nonetheless, I feel it captures my understanding of the word 'gesture', and it is with this definition in mind that I use it, along with any related words, throughout the thesis.

in the parent sound's spectrum.

Supporting this decision is the fact that 1,2,3,4 is by far the most common combination of partials yielded by taking the loudest four of every analysed sound. The second most common was 1,3,5,7 and this chord is therefore usually used as the secondary chord. Sometimes, in place of this chord, a similar chord which makes use primarily of odd-numbered scale degrees is used instead, e.g. 1,3,7,9; the way the chord sounds as it resolves onto the primary chord is what took priority in this decision. The secondary chord always features scale degrees 1 and 3, but must achieve a desired balance of similarity and difference between itself and the primary chord, in a sense borrowing from tonic-dominant relationships in Common Practice.

The 1,2,3,4 chord not only contains the parent sound's most prominent pitches, but, by extension, also it's most prominent intervals. These intervals provide the final key factor in creating distinct characters for each section and ensuring the music is constructed using an inherent trait of the parent sound. In a major or minor key, the seven possible chords all consist of similar intervals, namely classes 3, 4, 5 and, in the case of the diminished chord, class 6. While the vertical intervals are consistent in this idiom, the treatment of horizontal intervals is left to the composer's disposition. Conversely, in *Hallowed Be Thy Name*, the vast number of different chords will show considerable intervallic inconsistency (though this will depend on the make-up of each mode). Instead, the consistency lies in the horizontal motion as consecutive notes are restricted in the possible intervals that can separate them, based on those in the 1,2,3,4 chord.

Instead of the usual six interval classes, twelve are used in *Hallowed Be Thy Name* to take into account the inclusion of quartertones, show in *fig. 1.3*. The intervals between each of the pitches in the 1,2,3,4 chord are taken, up to a possible maximum of six, and used exclusively for horizontal motion in each section. These intervals are referred to as the 'core intervals' and only intervals belonging to the same interval classes as these are permitted while the mode they belong to is being used. It is these intervals in particular that affect whether or not a mode is suitable for a

certain section from a gestural point of view.

This rule is adhered to very strictly. A few exceptions are made in the form of certain broken chords, whereby only the first-sounding note follows the rule and the rest are allowed to gradually stack using the intervals of whichever chord is sounding. In these cases, however, every note can be separated from a note (not necessarily in the same part) in the preceding chord by a core interval, meaning they essentially do loosely follow the rule but with some interference. This can be seen as simply a kind of chromaticism, perhaps comparable with retardation but in horizontal form, a kind of harmonic delay.

Each of the five modes has a distinct set of core intervals, creating 1,2,3,4 chords of different qualities and inherent levels of tension, theoretically deriving from the nature of the parent sound itself. This provides the basis for the energy and character of each section. Restricting the intervals that can be used horizontally also adds to the sense of each section having a unique colour and character. The five modes are shown in full in *fig. 1.4*, as well as their parent sounds, relevant sections of the piece and core intervals.

Thus the constituent pitch classes of the spectrum, the most prominent intervals within said spectrum, the type of gesture and the aesthetic nature of the parent sound are all expanded upon to create musical discourse. Of course, the fact that the pitches are rounded to the nearest quartertone and that they do not have to sound in the specific register at which they occur in the spectra means that some of the qualities of the original sound are lost. In doing so, however, a different, interesting sound-world is created and the original aims of the piece are achieved. A list of the five modes with all their possible chords can be found in appendix 7.

Class Name	Intervals Contained (in semitones)
0.5	0.5, 11.5
1	1, 11
1.5	1.5, 10.5
2	2, 10
2.5	2.5, 9.5
3	3, 9
3.5	3.5, 8.5
4	4, 8
4.5	4.5, 7.5
5	5, 7
5.5	5.5, 6.6
6	6

fig. 1.3 - Interval classes in Hallowed Be Thy Name.

		_			_	_
Section	A	В	С	D	E	F
Performance Direction	apprehensively	wildly	furiously	calmly	aggressively	apprehensively
Sounds Used	natural, long duration, greater emphasis on lower registers	"modulatory": glissandi, bisbigliando, trills, temolo, etc.	Staccato: slap tongue, tongue pizz., etc.	natural, long duration, leading to harmonics and multiphonics	Harsh sounds: noise, split tone, teeth on reed, singing and playing	natural, long duration, elemements of each section
Mode Parent Sound	harmon (half) double pedal	Trumpet harmon (half) valve wah (C)	staccato - Eb	chalumeau high – mf	Bass Clarinet split tone (transposed +2)	Trumpet harmon (half) double pedal
Pitches	B≠ - 1 B - 2 Gd - 3 Eb - 4 G≠ - 5 F# - 6 Bb - 7 A - 8 A≠ - 9 C≠ - 10 C# - 11 Dd - 12 F - 13	Ed - 1 Bd - 2 C# - 3 Gd - 4 B≠ - 5 Dd - 6 A≠ - 7 E≠ - 8 A - 9 G≠ - 10 C≠ - 11 Ad - 12 F# - 13 F - 14	Eb - 1 G - 2 A - 3 Bd - 4 C≠ - 5 Bb - 6 G≠ - 7 C - 8 F# - 9 B - 10 Dd - 11 F - 12 E - 13	Ab - 1 E≠ - 2 B - 3 Dd - 4 C≠ - 5 Eb - 6 E - 7 A≠ - 8 F# - 9 Bd - 10 B≠ - 11 F - 12 Ed - 13 G - 14 C# - 15 D - 16 Ad - 17	C - 1 A≠ - 2 D - 3 C# - 4 B - 5 E - 6 B≠ - 7 Ad - 8 Gd - 9 C≠ - 10 Ab - 11	B≠ -1 B -2 Gd -3 Eb -4 G≠ -5 F# -6 Bb - 7 A - 8 A≠ -9 C≠ - 10 C# -11 Dd - 12 F - 13 Ed - 14 D≠ - 15
Core intervals	(0.5, 3.5, 4, 4.5, 5)	(2.5, 3, 4, 5, 5.5)	(1.5, 2, 3.5, 4, 4.5, 6)		(1, 2, 2.5, 3.5, 4.5)	(0.5, 3.5, 4, 4.5, 5)

fig. 1.4 - Each section is shown with its performance direction, a summary of the kinds of sounds featured, its mode and the associated core intervals. A clear link is visible between the parent sound of a section and the sounds used.

Material and Development

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Hallowed Be Thy Name is a piece very much concerned with harmony, which is reflected in the fact that the three main musical ideas are simply different ways of stating chords clearly:

- 1. Slow chordal build-ups, introducing the pitches gradually and sustaining each one until moving to the next chord.
- 2. Consecutive, fairly even-spaced, homorhythmic 'block' chords, usually occurring in threes and with a descending feel.
- 3. Arpeggios, usually ascending first then descending again, with a triplet feel.

These three gestural figures clearly stem from the same concept of outlining chords and chord progressions, and might essentially be considered three extensions of the same musical principle. They form the basis of most phrases, and are articulated or expanded upon in ways which make them adhere to the kinds of sounds chosen to feature in each section, as outlined in *fig. 1.4*.

Using these different sound types enhances each section's individual character and, by tying them in some way to the parent sound, supports the concept that each section is an exploration of that sound's natural qualities. Though the idea of focussing on different types of sounds in different sections serves to increase structural clarity, the way that the prevailing gestures transform from one section or sound type to the next can be quite linear and organic. This is to give a listener something to engage with that might guide them through the piece.

Hallowed Be Thy Name - Final Words

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Hallowed Be Thy Name takes a sound and expands upon an aspect of it to create a section of music, giving it some context within the range of all the possible sounds of the instrumentation as a means of tying all the sections together. This is aided by a logical progression of gesture, all stemming from the same harmony-centric concept. One final factor which ties the piece together is that the focal pitches of each section, namely scale degree 1 in each mode, are separated from each other by an interval that falls into one of mode 1's core classes, as shown in *fig. 1.11*.



fig. 1.11 – The focal pitches of each section and the interval that separates them, shown in semitones.

That being said, I feel there are certainly shortcomings in this piece. While the focus on harmony did successfully create a distinct sound, I feel other aspects of the material's treatment were perhaps overlooked or not sufficiently considered, leading to a lack of variety; a large proportion of the middle of the piece suffers from this in particular and is not as engaging as desired. With the benefit of hindsight, I feel more could have been made of texture in the piece, and similarly of the metaphysical or emotional significance of the gestures; both of these could have been developed in order to create a more varied, dynamic and engaging progression of character. *Hallowed Be Thy Name* seems almost as much of a solution to a proposed harmonic problem as it does an actual piece of music. The timbral and harmonic palettes do paint an interesting picture, but overall the piece is not as engaging to the listener as was aimed, and this must be considered a failing at least to some degree.

You Can Run – Commentary

Introduction

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You Can Run deals with the topic of addiction and the different sections needed to capture the ups, downs and other moods typically associated with the subject. The piece gave me the opportunity to explore the application of similar timbrally-derived harmonic and structural frameworks as Hallowed Be Thy Name in a completely electroacoustic context. Given that the number of possible timbres is limited only by my sound design skills and the size of my sample library, the technique could not be applied exactly as in Hallowed Be Thy Name. Instead, I chose to use spectral information from a spoken phrase to generate material for the piece, namely 'you can run, but you can't hide.'

The words in this phrase were analysed individually using the Pure Data patch I programmed and spectral snapshots from the beginning, middle and end of each were taken. This data, along with other perceivable qualities of each word, such as their envelopes, was used to define the course of the music, with one word being used as the material for each section, while the phrase as a whole and its meaning were used to guide the piece's overall form and generate some rhythmic material.

The analysed phrase was spoken by myself, and thus all of the material must be derived from the nature of the words as said in my own accent. I drop the Ts in the words 'but' and 'can't', and my vowels are more clipped than someone speaking with received pronunciation. These differences will be reflected in the spectral data.

To add further limitations and to help give the piece some direction in the initial stages of the composition process, I made the decision that every sample used to create the sounds featured in *You Can Run* should also come from me. I therefore recorded myself singing several different

vowels and a humming sound on every semitone in my range. I also recorded myself beatboxing and using other vocal effects and extended techniques, including Tuvan-style subharmonics and a sound emulating a water droplet. The only sample used in the piece which doesn't come from my voice or mouth is a recording of contact between the microphone and my facial hair.

Using samples originating from a similar source does not automatically give a piece a sense of cohesion or make the development of material causal by default. The same is even true of deriving all the sounds in an electroacoustic piece from the same sample, because these sounds can be manipulated in so many ways to create a variety of results which don't necessary make sense in the context of the same piece from a listener's perspective. It does, however, provide the opportunity to refer back to a similar pool of timbres, which can be helpful in giving the piece a perceivably clear trajectory. It is, of course, not the only way to achieve this by any means, but creating limits in sound design can in fact be useful when faced with a near-infinite set of options.

From Material to Harmony and Rhythm

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The spectral snapshots were organised so that the partials of each were in amplitude order, just as in *Hallowed Be Thy Name*. Because digital synths were being used rather than acoustic instruments, pitch could be far more precise, as the samples could be pitch corrected and then shifted by increments as small as one cent. This fine control of pitch offered the opportunity to experiment with microtuning and dynamic temperament. I felt that rounding each frequency to the nearest ten cents (with A at 440Hz) would offer enough flexibility in this regard without being unnecessarily time-consuming when it came to the actual sound design process. Thus a collection of 21 pitch sets were derived from the spoken phrase, three from each word, shown in appendix 8.

These pitch sets would provide the framework for pitch-related progression throughout the piece. Each section goes through its associated word's pitch sets in order, with the exception of

moments largely featuring noise. This can be muddled as desired with chromatic pitch classes, pitch classes from the set derived from the partials with the lowest amplitudes, or using sounds which prominently suggest more than one pitch throughout their envelope.

The most prominent pitch class in each set is determined by the frequency of the loudest partial (see fig 2.1), and is often treated as a pitch centre while that particular set is active. Thus You Can Run features a progression of pitch centres derived from the most prominent frequencies of the spoken phrase as it evolves, and is therefore related to the prosody of the phrase as said by me; the loudest partial is often the fundamental frequency or related to it by close to an octave, meaning it is also the pitch that would be perceived when listening to any given point of the spoken phrase in the moments when the phonemes have clear pitch. These pitch centres are often made unclear in the piece, due to both the desired mood I wanted to create and certain qualities of the section's associated word.

Sound 1	You 1 – start				
Partial	Frequency	Amplitude	Amp Ratio	Pitch Class	
1	105.388	0.00258081	100.00%	8.3	MOST PROMINENT PITCH CLASS
2 3	205.433	0.00117554	45.55%	7.8	
3	310.720	0.000565917	21.93%	3.0	
4	409.777	0.00018947	7.34%	7.8	
5		9.2874E-005	3.60%	11.7	
28	2979.900	6.3337E-005	2.45%	6.1	
6		0.000039303	1.52%	2.8	
27	2885.150	3.5784E-005	1.39%	5.6	
20		3.3058E-005	1.28%	0.5	
7	712.326	3.2904E-005	1.27%	5.3	
26		0.000026525	1.03%		
27		2.5925E-005	1.00%	5.3	
25		2.0388E-005	0.79%	4.1	
20	2057.500	1.9292E-005	0.75%	11.7	
16		1.8613E-005	0.72%		
26		1.7460E-005	0.68%	4.4	
23		0.000016874	0.65%		
22		1.6364E-005	0.63%		
24		1.5458E-005	0.60%		
8		1.4603E-005	0.57%		
21		1.4386E-005	0.56%		
11		1.4551E-005	0.56%	1.3	
18		1.3925E-005	0.54%		
18		1.3673E-005	0.53%		
21		1.3093E-005	0.51%		
24		1.2931E-005	0.50%		
22		1.1893E-005	0.46%		
23		0.000011505	0.45%		
19			0.44%		
10		1.0423E-005	0.40%		
12			0.40%		
9		1.0110E-005	0.39%		
14		9.5849E-006	0.37%		
15		9.5722E-006	0.37%		
16	1710.280	9.2012E-006	0.36%	8.5	

fig. 2.1 – The pitch set derived from the spectrum at the beginning of the first occurrence of the word 'you'. The pitch classes are expressed as numbers, with C being 0. The decimal shows the number of cents, in tens, that this pitch class is raised by. Hence the most prominent pitch class of this set is a G# raised by 30 cents.

The sections are influenced by their governing sounds in more ways than the use of the pitch sets; more obviously perceivable features of the words have an effect too, such as envelope and noise content. The words will often also offer some guide as to what sample would be used when designing sounds to fit into that section, for example a particular sung vowel. The sections are shown in *fig. 2.2*, along with their associated word, key features and the time position at which they occur. There are seven section, one for each word, and a substantial introduction.

Section	Word	Key Features	Time
Introduction	N/A	Introduces aspects of all the material, sets the tone	0.00 - 1.38
A	You 1	Shifting and unclear pitch centre, modulating sounds, low intensity which builds	1.38 – 3.33
В	Can	Rhythmic, high intensity which gradually dies down, unclear pitch centre until end, percussive sounds	3.33 – 5.40
С	Run	Low intensity which builds slightly and then dies down, more focussed pitch centre until end	5.40 - 8.36
D	But	Rhythmic, high intensity, unclear pitch centre, all percussive and noise-based sounds	8.36 – 9.35
Е	You 2	Low intensity, ethereal, more focussed pitch centre, modulating sounds, reminiscent of A	9.35 – 11.06
F	Can't	Rhythmic, high intensity which builds, reminiscent of B	11.06 – 11.59
G	Hide	Low intensity, noise which gradually becomes more harmonic	11.59 – end

fig. 2.2 - The sections in You Can Run, along with their respective governing sounds, timings and key features

Rhythmic material in *You Can Run* is also derived from the spoken phrase; the length of time between the start of each word was calculated and then rounded to the nearest number of significance, whilst still closely replicating the rhythm of the phrase as spoken by me, giving a set of ratios (see *fig. 2.3*). These ratios were used throughout the piece, determining aspects such as length of long sustained sounds, the time in between shorter-enveloped sounds and even vaguely influencing the length of each section relative to the rest. Though not every single instance of sound in *You Can Run* is subject to these ratios, and they are often used loosely, they provide the piece with a further element of consistency. The ratios are used in full, shortened to just the first three evenly spaced words, or to highlight the near but not exact even spacing between the last four words for interesting effect.

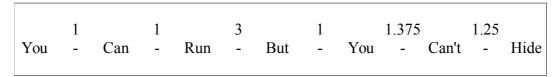


fig. 2.2 – The ratios of the lengths of time between the start of the words in the spoken phrase, used as rhythmic material in You Can Run.

You Can Run - Final Words

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You Can Run clearly generates pitch, rhythm, timbre and structure from the same source material, deriving these from various aspects of its sonority, including snapshots of its spectra. The piece is cohesive, with sufficient referral to similar sonorities, especially in the alternating sections of lower intensity, and the consistent use of rhythms originating from a single pattern. At the same time, it still presents contrast, variety and an engaging progression of sounds and moods.

That isn't to say that the piece is without its weaker moments; with time I've observed that I often become disinterested during section A. I suggest this is perhaps due to a lack of a perceivable development trajectory during this period within the context of the whole piece, which becomes even more apparent when there is minimal variety of material as is the case in section A. The slow panning and pitch-shifting chords of course set up a sense of familiarity for later events, and do have a fairly obvious link to some of the background material preceding it in the introduction, so I feel it is the shorter-duration foreground material that is more the root of the problem. These objects sound at time intervals governed by the previously-mentioned rhythmic ratios, with each full iteration being a diminished version of its antecedent, creating gradual rhythmic contraction. The relevance of the ratios however is not readily perceived, which I believe is due to two factors; firstly, the value of the third note's duration in the ratio is always significantly larger than all of the others, creating a noticeable break except in cases where the rhythm is sounded quickly, and so the listener may not identify the rhythm in full; secondly, the rhythmic ratio does not have a clear exposition before section A, and in fact arguably not in the piece at all, though I would cite section B as featuring a fairly clear presentation of the rhythmic material.

Finally, I must address a comment made by composer Alejandro Viñao in an e-mail conversation we had about the piece. On February 18, 2016, he wrote to me stating that 'this type of music favours the evolution in time -the morphology- of sound events as opposed to note to note

relationships such as counterpoint, harmony etc.' It is interesting to me, especially from a textural perspective, that this piece features so much emphasis on 'note to note relationships'; in some ways it leads the piece to be as reminiscent of instrumental music, or even popular styles of music such as Metal, EDM and IDM, as it does the electroacoustic music of the composers mentioned in the research outline. While the sheer variety of contrasting sonorities can threaten the continuity and cohesiveness of the whole piece, and does allow the risk of some sections being much weaker than others, I think in this case it is also responsible for the particular energy and character at times which give *You Can Run* its identity.

⁹ This is perhaps unsurprising as up to the present I have considerably more experience working in all of these other genres than in electroacoustic art music.

Minchia! - Commentary

Introduction

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Minchia! is unlike the other two pieces in the folio in that it doesn't have any particular subject matter, but instead focussing on creating a logical progression of intensity and general mood. This is because with seven different individuals predominantly improvising, the end result is unlikely to exactly reflect my own interpretation of any themes or topics; rather, the musicians will be influenced by their own individual experiences to create something that ultimately fits the overall mood, but in ways that I hope will vary as each ensemble develops their unique group dynamic.

Composed in Sicily during the course of a residency focussing on improvised music, the title is a mild Italian profanity and makes light of the fact that the improvisatory nature of *Minchia!* theoretically creates the potential for any rendition to be either good or bad, as the word can paradoxically be used as an interjection to express both. It is also a sentimental reference to the camaraderie between the musicians who first worked on the piece as we developed our own group dynamic (as far as a word which literally translates to the male genitalia can be said to hold any great sentiment).

Once more the aim was to derive harmonic elements, including microtonal pitch classes, and structural features from the sound palette of the instruments being used, and to show how this kind of technique can be applied in improvised music. The inclusion of live electronics, in the form of the analogue synthesiser, electric guitar and vocal amplification, added an extra distinguishing feature, but also a potential dilemma; on the one hand one wants to use these instruments to their fullest without compromising the distinct aspects of their sound, but on the other hand they need to be able to sit in the same texture as the acoustic instruments without seeming out of place. The analogue synth seemed the greatest threat to this textural and sonic balance, simply because it is

significantly more difficult to finely control its output in real time compared to the others.

A final factor to consider was the extent to which notation should be used while still permitting the desired level of improvisation and interaction between the players. The correct balance between these had to be achieved; the piece needed to offer the opportunity for different interpretations unique to each ensemble and performance, but also consistently deliver a clear and logical progression of sound, intensity and character.

Material, Structure and Harmony

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Reducing control of the specific material played by the instruments, but instead prioritising the intensity of the overall sound produced by the ensemble as a whole helps to ensure a level of structural consistency between different performances. I felt, however, that this parameter alone was not sufficient to guarantee a cohesive soundworld in each interpretation. I wanted to include a harmonic scheme related to those featured in *Hallowed Be Thy Name* and *You Can Run*, linking timbre, structure and harmony together in a way that would reinforce the consistency a listener would experience.

The synth was chosen as the source from which harmonic content would be derived in order to ensure that it does not unintentionally stand out from the texture. One evolving sound was chosen and spectrally analysed using the same Pure Data patch as the previous two pieces, giving two spectral snapshots of the sound; one from the very start and one from the very end. Like in *Hallowed Be Thy Name*, the resulting two sets of partials were ordered by amplitude and their frequencies were rounded to the nearest quartertone in 24-TET (with A at 440Hz). This gives two pitch sets, one of which is far larger than the other (see *fig. 3.1*). The full results of the spectral analysis confirm that this stems from spectral saturation of the sound over time, which is certainly an audible feature, and can be seen in appendix 9.

The original parent sound is referred to in the score as the 'sweeping gesture', and has an inherent crescendo due to the linear ramp controlling the waveform envelope. It is also noteworthy that this crescendo would loop if the sound were sustained, as the ramp would jump straight back to zero once it reached its peak amplitude. Although much of the specific material is left to the performers, it is important that the sweeping gesture sounds as close to the original in every performance in order for this piece to sound the way it should and maintain its identity. Therefore a recording of the sound originally used for analysis has been made available online for reference, a link to which is provided in the score.

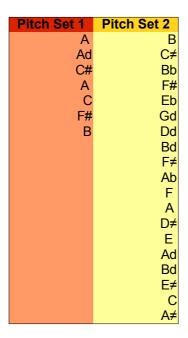


fig. 3.1 – The two pitch sets derived from spectral analysis of the sweeping gesture. Each is listed by order of the corresponding partial's amplitude, and repeat pitch classes have been removed. Pitch Set 1 has been transposed down by 30 cents to compensate for the effect of light frequency modulation on the signal. The symbol '≠' is used to denote a quartertone sharp, while 'd' is used for a quartertone flat.

It became clear with workshopping that the best approach was to use only one sound to generate material, rather than many as in the other pieces included in this portfolio. On a basic, but important level with regards to the aims of this piece, the more frequently pitch content needed to

be detailed in the score, the more effort players would have to expend in reading it, therefore bringing their focus more towards their individual playing rather than that of the other players and the sound of the ensemble as a whole. Using multiple parent sounds, e.g. one per section as in the previous two pieces, would lend itself to outlining specific pitch or interval classes in the score multiple times throughout the piece.

The second reason for only using one parent sound is a practical one relating to the instrumentation; if the decision to use the analogue synthesiser for the source material has been made, one must consider the feasibility of recreating the relevant sounds on the synth in the context of a performance. Because these source sounds provide the framework for everything that occurs in the piece, they must be able to do so reliably, and this means they must be very similar in every performance. The difficulty in most cases of quickly and accurately changing to a specific desired sound on the synth proved a decisive factor when deciding on source material.

The final factor in deciding to use only one sound as source material rests in consistency and perceivable clarity of development. Because pitch classes, interval structure, gesture and rhythm are not controlled with the same level of detail as fully notated music, the way that these parameters refer to the original material in any given performance is likely to be blurred and not immediately clear on a surface level. Using less material effectively creates more opportunity for different aspects of it to be inferred in different ways, gradually clarifying the inner workings of the music without spoon-feeding it to a listener.

The most important qualities of the sweeping gesture with regards to generating the piece as a whole are its gradually increasing amplitude envelope and level of spectral saturation. The spectrum starts off with only a few partials, from which any notated pitch classes in the score are derived, and transitions to a sound bordering on noise. Likewise, the entire piece is essentially a long transition from a few pitches to any pitches and right the way to noise, but with some slight detours and a noisy introduction. This introduction can be considered a derivative of the looping

nature of the sound, as can the short decay to a single pitch at the very end of the piece; the sound reaches a peak directly before beginning again at a trough.

Each section, as notated by letters in the score, is itself a clearly defined hairpin, except for the very ending which is in fact a reverse hairpin. Different instrumental grouping and recommended timbres are used help ensure contrast between these sections.

Minchia! - Final Words

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Minchia! shows how material can be derived from a single source and used to generate an entire coherent piece in the context of music which is predominantly improvised. Pitch material is developed in a way that is both free and logical, and is clearly linked with timbre, spectrum and structure as a whole. The music is idiomatic, both in terms of improvised music and in terms of the roles and gestures played by each instrument.

While there is potential for a significant amount of variety in each performance, there are, one hopes, sufficient measures taken to ensure each of these interpretations has the potential to work and for the piece to maintain a sense of it's own identity; the improvisation is quite strictly controlled despite a total absence of traditional fixed notation. That being said, the fact does remain that to date this piece has only been tested by the same seven musicians, and the performances took place near to each other in time. My claims about the piece could perhaps only truly be fully substantiated with further performances by varied personnel.

Attempting to constructively critique *Minchia!* in the same way as the other two pieces in fact proves a somewhat fruitless exercise; on paper (or, in this case, in the score) there are no clear fundamental issues with the piece which I can identify. Due to amount of freedom, the work's success relies heavily on the players' skill in the relevant areas, their cohesion as an ensemble and their having sufficient and effective rehearsal. This is in a way true of all music, but in an

improvised context all of these factors are renovated by the added dimension of composing while performing; players with better individual judgement and group communication skills, both in a musical performance sense and in a social sense, will be more likely to make *Minchia!* a good piece. Their abilities, I believe, genuinely determine, to an extent, whether the work is successful or not.

Appendix 1

				Appendix 1				
Sound 1 NHN	Bottom – p – low Frequency Amplitude A	Amp Ratio F	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Pite	ch Class
	1 257.608 0.0064249667 2 515.490 0.0004444373	100.00% 6.92%	59.73 71.74	0.00 12.01		0.00% 0.05%	0.00% 0.01%	11.7 11.7
:	3 771.291 0.0004331983	6.74%	78.72	18.99		-0.20%	-0.04%	6.7
	5 1286.713 0.0002146427 6 1564.667 0.000163663	3.34% 2.55%	87.58 90.96	27.85 31.23	partial is quite sharp	-0.10% 1.23%	-0.02% 0.23%	3.6 7.0
	4 1027.073 0.000135336 8 2095.287 3.58325E-005	2.11% 0.56%	83.68 96.02	23.94 36.29	partial is quite sharp	-0.33% 1.67%	-0.07% 0.30%	11.7 0.0
	7 1815.380 3.45655E-005	0.54%	93.54	33.80	partial is quite snarp	0.67%	0.30%	9.5
Sound 2	Dattom n high							
NHN			Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
	1 379.300 0.0038815167 2 763.928 0.0007626933	100.00% 19.65%	66.43 78.55	0.00 12.12	Note that all harmonic	0.00% 0.70%	0.00% 0.15%	6.4 6.6
	4 1527.877 0.000357901 3 1143.210 0.000349296	9.22% 9.00%	90.55	24.12	partials are slightly sharp	0.70%	0.13%	6.6
	5 1907.113 0.0001386585	3.57%	85.53 94.39	19.10 27.96		0.47% 0.56%	0.09% 0.10%	1.5 10.4
(6 2292.227 5.66691E-005	1.46%	97.57	31.14		0.72%	0.13%	1.6
Sound 3	Bottom – mf – low							
NHN	Frequency Amplitude A 2 517.878 0.00821228	Amp Ratio F 100.32%	71.82	Interval from Fundamental 12.00	Notes louder than fundamental	Diversion (Hz) Divers	0.00%	ch Class 11.8
	1 258.913 0.0081864333	100.00% 93.29%	59.82 90.88	0.00 31.06	Note that all harmonic	0.00% 0.26%	0.00% 0.05%	11.8 6.9
:	6 1557.450 0.0076367333 776.857 0.00568737	69.47%	78.84	19.02	partials are slightly sharp	0.02%	0.00%	6.8
	5 1298.397 0.0036840667 7 1818.833 0.000809877	45.00% 9.89%	87.73 93.57	27.91 33.75		0.30% 0.36%	0.06% 0.07%	3.7 9.6
	4 1039.487 0.0008085363	9.88%	83.88	24.06		0.37%	0.08%	11.9
	8 2077.090 0.0005648863	7.43% 6.90%	97.90 95.87	38.08 36.05		0.24% 0.28%	0.04% 0.05%	1.9 11.9
14		4.17% 3.70%	105.54 101.37	45.72 41.55		0.20% 0.19%	0.03% 0.03%	9.5 5.4
10	3 3372.890 0.0002721233	3.32%	104.26	44.44		0.21%	0.03%	8.3
11		2.40% 1.67%	99.72 106.75	39.90 46.93		0.22% 0.26%	0.04% 0.04%	3.7 10.7
1:	2 3111.927 0.0001018284	1.24%	102.87	43.05	INITADMONIO	0.16%	0.03%	6.9
1:	6 1651.597 5.84443E-005	0.96% 0.71%	104.66 91.90	44.85 32.08	INHARMONIC INHARMONIC	2.57% 6.32%	0.42% 1.17%	8.7 7.9
	8 2185.437 5.07071E-005	0.62%	96.75	36.93	INHARMONIC	5.51%	0.97%	0.7
Sound 4	Bottom – mf – high							
NHN	Frequency Amplitude A 2 773.529 0.0123939333	Amp Ratio F 111.05%	78.77	Interval from Fundamental 12.00	Notes louder than fundamental	Diversion (Hz) Divers	o.00%	ch Class 6.8
	1 386.703 0.0111602667	100.00%	66.76	0.00		0.00%	0.00%	6.8
	3 1158.510 0.0065533067 4 1543.423 0.00491218	58.72% 44.01%	85.76 90.73	19.00 23.96	Note that all harmonic partials are slightly flat	-0.14% -0.22%	-0.03% -0.04%	1.8 6.7
	5 1928.103 0.00249586 6 2314.857 0.0020435823 8 3086.783 0.0005042967	22.36% 18.31%	94.58 97.74	27.81 30.98	with the exception of partial 2	-0.28% -0.23%	-0.05% -0.04%	10.6 1.7
	8 3086.783 0.0005042967	4.52%	102.73	35.96	paraur 1	-0.22%	-0.04%	6.7
	9 3473.317 0.0004316267 7 2700.530 0.000272611	3.87% 2.44%	104.77 100.41	38.00 33.65		-0.20% -0.24%	-0.03% -0.04%	8.8 4.4
10		1.87% 1.63%	106.60 109.74	39.83 42.98		-0.18% -0.23%	-0.03% -0.04%	10.6 1.7
4	4 1610.067 0.0001571473	1.41%	91.46	24.69	INHARMONIC	4.09%	0.76%	7.5
1: 1:		0.99% 0.84%	111.13 113.60	44.37 46.84		-0.21% -0.27%	-0.03% -0.04%	3.1 5.6
1	1 4245.497 7.68704E-005	0.69% 0.64%	108.24	41.48 50.00		-0.19% -0.22%	-0.03% -0.03%	0.2 8.8
	8 6945.683 7.18878E-005 4 1715.143 6.18517E-005	0.55%	116.77 92.55	25.79	INHARMONIC	10.88%	1.97%	8.6
Sound 5	Bottom – f – low							
NHN	Frequency Amplitude A		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
	785.580 0.0119815667 1307.470 0.0103741033	247.45% 214.26%	79.04 87.85	19.13 27.95	louder than fundamental louder than fundamental	0.66% 0.52%	0.14% 0.10%	7.0 3.9
	6 1571.207 0.0082455333 525.602 0.00582196	170.29% 120.24%	91.04 72.08	31.13 12.18	louder than fundamental louder than fundamental	0.66% 1.02%	0.13% 0.24%	7.0 0.1
	1 260.145 0.0048419233	100.00%	59.90	0.00		0.00%	0.00%	11.9
	7 1833.213 0.0026718567 8 2093.347 0.00261536	55.18% 54.01%	93.71 96.00	33.80 36.10	Note that all harmonic partials are slightly sharp	0.67% 0.59%	0.12% 0.11%	9.7 0.0
	4 1045.793 0.0025453833	52.57%	83.99	24.09		0.50%	0.10%	12.0
10	3 3404.447 0.0008648797	30.13% 17.86%	99.88 104.42	39.98 44.52		0.67% 0.67%	0.12% 0.11%	3.9 8.4
1	9 2357.100 0.0007756243 1 2878.903 0.0004418557	16.02% 9.13%	98.06 101.52	38.16 41.62		0.67% 0.60%	0.12% 0.10%	2.1 5.5
1:	2 3140.807 0.0004061727	8.39%	103.03	43.12		0.61%	0.10%	7.0
14	4 3664.103 0.0002569497 5 3926.627 0.000256128	5.31% 5.29%	105.69 106.89	45.79 46.99		0.61% 0.63%	0.10% 0.10%	9.7 10.9
1	5 3990.780 9.37419E-005 1393.263 8.60483E-005	1.94% 1.78%	107.17 88.95	47.27 29.05	INHARMONIC INHARMONIC	2.27% 7.11%	0.36% 1.36%	11.2 5.0
10	3 3345.407 7.50015E-005	1.55%	104.12	44.22	INHARMONIC	-1.08%	-0.18%	8.1
	6 1651.880 7.46884E-005	1.54%	91.90	32.00	INHARMONIC	5.83%	1.08%	7.9
Sound 6	Bottom – f – high		14-1- (BF15-1 1"	Internal forms	Mar	Diversity (11)	(Dit 1)	-1-01
	4 1562.857 0.0315707	Amp Ratio F 355.17%	90.94	Interval from Fundamental 24.06	Notes louder than fundamental	Diversion (Hz) Divers	0.07%	ch Class 6.9
	3 1173.500 0.0241340333 784.210 0.0090837867	271.51% 102.19%	85.98 79.00	19.10 12.12	louder than fundamental louder than fundamental	0.47% 0.71%	0.10% 0.16%	2.0 7.0
	1 389.324 0.0088888367	100.00%	66.88	0.00		0.00%	0.00%	6.9
	5 1957.647 0.0040226567 7 2736.463 0.0032362433	45.26% 36.41%	94.84 100.64	27.96 33.76	Note that all harmonic partials are slightly sharp	0.57% 0.41%	0.10% 0.07%	10.8 4.6
9	9 3520.707 0.0012624083	14.20%	105.00	38.12		0.48%	0.08%	9.0
10	6 2346.843 0.0008853167	13.06% 9.96%	106.83 97.98	39.95 31.10		0.48% 0.47%	0.08% 0.08%	10.8 2.0
19 14	5 5867.550 0.000699594	7.87% 7.21%	113.85 112.65	46.96 45.77		0.47% 0.47%	0.07% 0.07%	5.8 4.7
	8 3129.583 0.000489216	5.50%	102.96	36.08		0.48%	0.08%	7.0
10		4.55% 4.08%	114.97 117.00	48.09 50.12		0.51% 0.44%	0.08% 0.07%	7.0 9.0
1	7 6649.707 0.0003529287	3.97%	116.01	49.13 44.49		0.47%	0.07%	8.0
1:	3 5087.217 0.00035118	3.95%	111.38	44.49		0.51%	0.08%	3.4

Appendix 1

11				Appendix 1				
	4302.687 0.0002340703	2.63%	108.48	41.59		0.47%	0.07%	0.5
18	6862.273 0.0001290317	1.45%	116.56	49.68	INHARMONIC	-2.08%	-0.31%	8.6
	reak – p – low Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Clase
1	547.182 0.0093334367	100.00%	72.77	0.00	Notes	0.00%		0.8
2	1088.727 0.0031001	33.21%	84.68	11.91	Note that all harmonic	-0.52%	-0.11%	0.7
4	2179.083 0.0015653353 1636.193 0.0014206733	16.77% 15.22%	96.70 91.74	23.92 18.96	partials are slightly flat	-0.44% -0.33%	-0.08% -0.06%	0.7 7.7
6	3270.377 0.000158334	1.70%	103.73	30.95		-0.39%		7.7
5	2726.843 0.0001422297	1.52%	100.58	27.81		-0.33%	-0.06%	4.6
7	3812.643 0.000135459	1.45%	106.38	33.61		-0.46%	-0.08%	10.4
Caund C a								
	reak – p – high Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	612.834 0.0167651333	100.00%	74.74	0.00		0.00%	0.00%	2.7
2 3	1225.633	33.90% 14.29%	86.74 93.72	12.00 18.99		0.00% -0.20%	0.00% -0.04%	2.7 9.7
4	2447.697 0.0008717257	5.20%	98.71	23.97		-0.15%		2.7
5	3060.760 0.0003807923	2.27%	102.58	27.84		-0.11%	-0.02%	6.6
6 8	3671.407 0.000162311 4893.337 8.74002E-005	0.97% 0.52%	105.73 110.70	30.99 35.97		-0.15% -0.19%	-0.02% -0.03%	9.7 2.7
J	1000.007 0.7 10022 000	0.0270	110.70	33.57		0.1070	0.0070	2.7
Sound 9 Br	reak – f – low							
	requency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	Pitch Class
2	1111.927 0.0211314333 556.104 0.0119513333	176.81% 100.00%	85.05 73.05	12.00 0.00	louder than fundamental	-0.03% 0.00%	-0.01% 0.00%	1.0 1.1
5	2781.330 0.0031977153	26.76%	100.92	27.87	heavy vibrato in sample may			4.9
3	1665.423 0.0020943367	17.52%	92.04	18.99	affect accuracy	-0.17%		8.0
6	3329.947 0.000446393 2067.580 0.000294443	3.74% 2.46%	104.04 95.79	30.98 22.73	INHARMONIC(?)	-0.20% -7.05%	-0.03% -1.30%	8.0 11.8
9	4963.073 0.0002720002	2.28%	110.95	37.89		-0.84%	-0.13%	2.9
8 5	4446.460 0.0002640887 2558.737 0.000160536	2.21%	109.04 99.48	35.99	INHARMONIC	-0.05%	-0.01%	1.0
10	5779.090 0.0001107312	1.34% 0.93%	113.58	26.42 40.53	INHARMONIC	-7.98% 3.92%	-1.43% 0.59%	3.5 5.6
2	1338.707 7.68263E-005	0.64%	88.26	15.21	INHARMONIC	20.36%	3.77%	4.3
Sound 10 Br								
NHN F	Frequency Amplitude 1242.793 0.0731151333	Amp Ratio 258.82%	Pitch (MIDI #) 86.98	Interval from Fundamental 11.95	Notes louder than fundamental	-0.29%	Diversion (Pitch) -0.06%	Pitch Class 3.0
1	623.198 0.0282499333	100.00%	75.03	0.00		0.00%	0.00%	3.0
4	2487.120 0.0068911167 1865.820 0.0046178667	24.39% 16.35%	98.99 94.01	23.96 18.98	Note that all harmonic	-0.23% -0.20%		3.0 10.0
6	3731.723 0.0024319167	8.61%	106.01	30.98	partials are slightly flat	-0.20%		10.0
7	4353.293 0.0018702133	6.62%	108.68	33.65		-0.21%	-0.03%	0.7
5 11	3108.203 0.0011771373 6841.750 0.0009963297	4.17% 3.53%	102.85 116.51	27.82 41.48		-0.25% -0.20%		6.8 8.5
9	5595.113 0.000771716	2.73%	113.02	38.00		-0.24%		5.0
8	4976.033 0.00063071	2.23%	110.99	35.97		-0.19%		3.0
10 12	6218.670 0.00056231 7458.727 0.0004568117	1.99% 1.62%	114.85 118.00	39.83 42.97		-0.21% -0.26%	-0.03% -0.04%	6.9 10.0
17	10569.000 0.000287819	1.02%	124.03	49.01		-0.24%	-0.03%	4.0
Sound 11 Mi								
NHN F						B: : (11.)	D: . (D:/ 1)	D'' 1 OI
	688 /64 0 02/615	Amp Ratio	76.76	Interval from Fundamental	Notes		Diversion (Pitch)	
2	688.764 0.027615 1377.430 0.0067070267	100.00% 24.29%	76.76 88.76	0.00 12.00	Note that all harmonic	0.00% -0.01%	0.00% 0.00%	4.8 4.8
2 3	1377.430 0.0067070267 2066.180 0.0023903033	100.00% 24.29% 8.66%	76.76 88.76 95.78	0.00 12.00 19.02		0.00% -0.01% -0.01%	0.00% 0.00% 0.00%	4.8 4.8 11.8
	1377.430 0.0067070267	100.00% 24.29%	76.76 88.76	0.00 12.00	Note that all harmonic	0.00% -0.01%	0.00% 0.00% 0.00%	4.8 4.8
3 4	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007	100.00% 24.29% 8.66% 1.85%	76.76 88.76 95.78 100.74	0.00 12.00 19.02 23.99	Note that all harmonic	0.00% -0.01% -0.01% -0.08%	0.00% 0.00% 0.00% -0.01%	4.8 4.8 11.8 4.7
3 4 5	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143	100.00% 24.29% 8.66% 1.85% 1.45%	76.76 88.76 95.78 100.74 104.61	0.00 12.00 19.02 23.99 27.85	Note that all harmonic	0.00% -0.01% -0.01% -0.08% -0.06%	0.00% 0.00% 0.00% -0.01% -0.01%	4.8 4.8 11.8 4.7 8.6
3 4 5 7	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659	100.00% 24.29% 8.66% 1.85% 1.45%	76.76 88.76 95.78 100.74 104.61	0.00 12.00 19.02 23.99 27.85	Note that all harmonic	0.00% -0.01% -0.01% -0.08% -0.06%	0.00% 0.00% 0.00% -0.01% -0.01%	4.8 4.8 11.8 4.7 8.6
3 4 5 7 Sound 12 Mi	1377.430 0.0067070267 2066.180 0.002390302 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659	100.00% 24.29% 8.66% 1.85% 1.45% 0.39%	76.76 88.76 95.78 100.74 104.61 110.44	0.00 12.00 19.02 23.99 27.85 33.68	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.08% -0.06% -0.05%	0.00% 0.00% 0.00% -0.01% -0.01%	4.8 4.8 11.8 4.7 8.6 2.4
3 4 5 7 Sound 12 Mi	1377.430 0.0067070267 2066.180 0.00259303033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659	100.00% 24.29% 8.66% 1.85% 1.45%	76.76 88.76 95.78 100.74 104.61 110.44	0.00 12.00 19.02 23.99 27.85 33.68	Note that all harmonic	0.00% -0.01% -0.01% -0.08% -0.06% -0.05%	0.00% 0.00% 0.00% -0.01% -0.01% -0.01%	4.8 4.8 11.8 4.7 8.6 2.4
Sound 12 Min 1 1 2	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle – p – high Frequency Amplitude 915.346 0.0233464 1830.537 0.0072181233	100.00% 24.29% 8.66% 1.85% 1.45% 0.39% Amp Ratio 100.00% 30.92%	76.76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) -0.00%	0.00% 0.00% 0.00% -0.01% -0.01% -0.01% Diversion (Pitch) 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7
Sound 12 MM F F F F F F F F F F F F F F F F F F	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high Frequency Amplitude 915.346 0.0233464 1830.537 0.0072181233 2745.987 0.000669828	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87%	76.76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% -0.05%	0.00% 0.00% 0.00% -0.01% -0.01% -0.01% Diversion (Pitch) 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7
Sound 12 Min 1 1 2	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high frequency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333	100.00% 24.29% 8.66% 1.85% 1.45% 0.39% Amp Ratio 100.00% 30.92%	76.76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) -0.00%	0.00% 0.00% 0.00% -0.01% -0.01% -0.01% Diversion (Pitch) 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5
Sound 12 MMN F	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle – p – high Frequency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828	100.00% 24.29% 8.66% 1.85% 1.45% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18%	76,76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) -0.01% -0.01% -0.00% -0.01%	0.00% 0.00% 0.00% -0.01% -0.01% -0.01% Diversion (Pitch) 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7
Sound 12 Min F 1 2 3 4 5 5	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high frequency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333	100.00% 24.29% 8.66% 1.85% 1.45% 0.39% Amp Ratio 100.00% 30.92% 2.87% 0.99%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) -0.00% -0.01% -0.01% -0.01% -0.01%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5
Sound 12 MAR F F F F F F F F F F F F F F F F F F F	1377.430 0.0067070267 2066.180 0.002390302 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.0001196352	100.00% 24.29% 8.66% 1.85% 1.45% 0.39% Amp Ratio 100.00% 30.92% 2.87% 0.99%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) -0.00% -0.01% -0.01% -0.01% -0.01%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5
Sound 12 MA F F F F F F F F F F F F F F F F F F	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.0001196352	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) 0.00% -0.01% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7
Sound 12 MA F F F F F F F F F F F F F F F F F F	137.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle = p = high frequency 915.346 1030.537 0.0072181233 2745.967 0.00069828 3661.170 0.0005996157 4577.153 0.0002319333 5491.997 0.0001196352	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02	Note that all harmonic partials are slightly flat	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7
Sound 12 M/NHN F 6 8 8 8 9 1 1 1 1 1 1 3 3 1 1 1 3 1 3 1 1 1 1 3 1 1 1 3 1	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high Frequency	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 0.99% 0.51%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 0.00 19.03	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.01% -0.01% -0.00% Diversion (Hz) -0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7
Sound 12 Min F	1377.430 0.0067070267 2066.180 0.002390303 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle - p - high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.00068828 3661.170 0.005096157 4577.153 0.0002319333 5491.997 0.00068828 iddle - f - low requency 697.198 0.0744020667 2093.270 0.0153930333 1396.527 0.0113794233	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 100.00% 100.00% 100.00% 100.00% 100.00%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.08% -0.06% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.5 4.7
Sound 12 M/NHN F 6 8 8 8 9 1 1 1 1 1 1 3 3 1 1 1 3 1 3 1 1 1 1 3 1 1 1 3 1	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle = p = high frequency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.0001196352	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 0.99% 0.51%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 0.00 19.03	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.01% -0.01% -0.00% Diversion (Hz) -0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 8.8
Sound 12 MAR 5 6 6 Sound 13 MR 1 1 3 2 4 5 5 6 5 7 7	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.00068928 iddle – f – low requency 697.198 0.0744020667 2093.270 0.0153930333 3485.520 0.001715497 3484.493 0.0006859013	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.26% 3.26% 2.25% 0.99%	76, 76 88, 76 95, 78 100, 74 104, 61 110, 44 Pitch (MIDI #) 81, 68 93, 68 100, 70 105, 68 109, 55 112, 70 Pitch (MIDI #) 76, 97 96, 00 89, 00 100, 99 104, 83 110, 67	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.06% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.01% 0.00% 0.15% 0.12% -0.01% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 8.8 8.2,7
Sound 12 Min F Sound 13 Min F Sound 13 Min F Sound 13 Min F Sound 13 Min Sound 13 M	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high Frequency	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.25% 0.95% 1.26% 0.92% 0.92% 0.95%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86	Note that all harmonic partials are slightly flat Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.00% -0.01% -0.01% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 8.8
Sound 12 MA 5 6 6 Sound 13 MA 5 6 6 Sound 13 MA 5 7 9 9	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.00068928 iddle – f – low requency 697.198 0.0744020667 2093.270 0.0153930333 3485.520 0.001715497 3484.493 0.0006859013	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.26% 3.26% 2.25% 0.99%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 27.86 31.02	Note that all harmonic partials are slightly flat Notes Notes	0.00% -0.01% -0.01% -0.06% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.01% 0.00% 0.15% 0.12% -0.01% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 5.0 5.0 7.7 7.7
Sound 12 MA 5 6 6 Sound 13 MA 5 6 6 Sound 13 MA 5 7 9 9	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p = high Frequency	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.25% 0.95% 1.26% 0.92% 0.92% 0.95%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 27.86 31.02	Note that all harmonic partials are slightly flat Notes Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.00% -0.01% -0.01% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 5.0 5.0 7.7 7.7
Sound 12 MA 5 6 6 Sound 13 MA 5 6 6 Sound 13 MA 5 7 9 9	1377.430 0.0067070267 2066.180 0.002390303 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.00068828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.00068828 iddle – f – low requency 697.198 0.0744020667 2093.270 0.0159300333 1396.527 0.0113794233 2792.270 0.0024285533 2792.270 0.0024285533 2485.490 0.0016715497 4884.493 0.0006859013 6280.500 0.000131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 30.92% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.25% 0.95% 1.26% 0.92% 0.92% 0.95%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 27.86 31.02	Note that all harmonic partials are slightly flat Notes Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.00% -0.01% -0.01% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00%	4.8 4.8 11.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 5.0 5.0 7.7 7.7
Sound 12 MA 5 6 6 Sound 13 MA 5 6 6 Sound 13 MA 5 7 9 1 1 Sound 14 MA 5 7 7 9 1 1 Sound 14 MA 6 SOUN	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle - p - high frequency 915.346 1330.537 0.0072181233 2745.967 0.00069828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.0001196352 iddle - f - low frequency 697.198 0.0744020667 2093.270 0.0153930333 1396.527 0.011379423 2792.270 0.0024285533 2792.270 0.000428553 3485.520 0.0016715497 4884.493 0.0006850013 6280.500 0.0001715497 4884.493 0.0006850013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 2.87% 2.18% 0.99% 0.51%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02 83.96	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) -0.09% -0.01% -0.01% -0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.07% -0.01% -0.07% -	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 8.8 2.7 7.0 12.0
Sound 12 MA 5 6 6 Sound 13 MA 5 7 9 1 1 Sound 14 MA NHN F	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.00066828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.00068828 iddle – f – low requency 697.198 0.0744020667 2093.270 0.00153930333 3485.491.997 0.0153930333 2792.270 0.0024285533 3485.520 0.0016715497 4884.493 0.0006859013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 2.18% 0.99% 0.51% Amp Ratio 100.00% 20.69% 15.29% 0.56% 0.43%	76, 76 88, 76 95, 78 100, 74 104, 61 110, 44 Pitch (MIDI #) 81, 68 93, 68 100, 70 105, 68 109, 55 112, 70 Pitch (MIDI #) 76, 97 96, 00 89, 00 100, 99 104, 83 110, 67 115, 02 83, 96	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC	0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.01% 0.01% 0.01% 0.09% 49.77%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.01% 0.01% 0.03% 0.02% 0.00% 0.01% 0.01% 0.09%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 8.8 8.7 7.0 12.0
Sound 12 Minum 1 1 2 3 4 4 5 5 6 6 5 6 5 7 7 9 9 1 1 5 5 7 7 9 9 1 1 5 5 7 7 9 9 1 1 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle - p - high frequency 915.346 1330.537 0.0072181233 2745.967 0.00066828 3661.170 0.005096157 4577.153 0.002319333 5491.997 0.00068828 3661.90 0.000196352 iddle - f - low frequency Amplitude 907.198 0.0744020667 2093.270 0.0153930333 3485.520 0.0016715497 4884.493 0.006859013 6280.500 0.0001715497 4884.493 0.0006859013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 20.50% 2.87% 2.18% 0.99% 0.51% 20.69% 20.69% 15.29% 0.25% 0.92% 0.43% 4Mp Ratio 100.00% 17.33%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02 83.96 Pitch (MIDI #) 81.87 100.92 93.88	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC	Diversion (Hz) 0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.08% 0.15% 0.12% 0.01% 0.08% 0.45% 0.15% 0.12% -0.01% 0.08% 0.15% 0.12% -0.01% 0.08% 0.08% 0.15% 0.12% -0.01% 0.00%	0.00% 0.00% 0.00% 0.01% -0.01% -0.01% -0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 5.0 5.0 12.0 Pitch Class 9.9 9.9 9.9
Sound 12 MA 5 6 6 Sound 13 MA 5 7 9 1 1 Sound 14 MA 5 7 9 1 1 Sound 14 MA 5 7 9 1 1 Sound 14 MA 6 7 7 9 1 Sound 14 MA 6 7 9 1 Soun	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle – p – high requency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000669828 3661.170 0.00069828 3661.170 0.0005096157 4577.153 0.0002319333 5491.997 0.000196352 iddle – f – low requency Amplitude 697.198 0.0744020667 2093.270 0.0153930333 3485.520 0.0017333 2792.270 0.0024285533 3485.520 0.001715497 4884.493 0.0008859013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 2.87% 2.18% 0.99% 0.51% Amp Ratio 100.00% 20.69% 15.29% 0.25% 0.43% Amp Ratio 100.00% 17.33% 12.97% 3.81%	76, 76 88, 76 95, 78 100, 74 104, 61 110, 44 Pitch (MIDI #) 81, 68 100, 70 105, 68 109, 55 112, 70 Pitch (MIDI #) 76, 97 96, 00 89, 00 89, 00 100, 99 104, 83 110, 67 115, 02 83, 96 Pitch (MIDI #) 81, 87 100, 92 93, 88 105, 88	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.04 12.00 24.01	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC Notes Notes	Diversion (Hz) Diversion (Hz) 0.08% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% 0.01% 0.00% 0.04% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.03% 0.02% 0.01% 0.01% 0.01% 0.09% 0.01% 0.01% 0.01% 0.00%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 8.8 2.7 7.0 12.0 Pitch Class 9.9 9.9 9.9
Sound 12 Minum 1 1 2 3 4 4 5 5 6 6 5 6 5 7 7 9 9 1 1 5 5 7 7 9 9 1 1 5 5 7 7 9 9 1 1 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.000168659 iddle - p - high frequency 915.346 1330.537 0.0072181233 2745.967 0.00066828 3661.170 0.005096157 4577.153 0.002319333 5491.997 0.00068828 3661.90 0.000196352 iddle - f - low frequency Amplitude 907.198 0.0744020667 2093.270 0.0153930333 3485.520 0.0016715497 4884.493 0.006859013 6280.500 0.0001715497 4884.493 0.0006859013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 20.50% 2.87% 2.18% 0.99% 0.51% 20.69% 20.69% 15.29% 3.26% 0.43% 4.40%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02 83.96 Pitch (MIDI #) 81.87 100.92 93.88	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC Notes Notes	Diversion (Hz) 0.00% -0.01% -0.01% -0.08% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.08% 0.15% 0.12% 0.01% 0.08% 0.45% 0.15% 0.12% -0.01% 0.08% 0.15% 0.12% -0.01% 0.08% 0.08% 0.15% 0.12% -0.01% 0.00%	0.00% 0.00% 0.01% -0.01% -0.01% -0.01% -0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.03% 0.09% 0.01% 0.09% 0.01% 0.09% 0.01% 0.09% 0.01% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 5.0 5.0 12.0 Pitch Class 9.9 4.9 9.9
Sound 12 Min F F F F F F F F F F F F F F F F F F F	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p - high frequency	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 2.87% 2.87% 0.51% 4mp Ratio 100.00% 2.18% 0.99% 0.51% 4mp Ratio 100.00% 2.25% 0.95% 0.43% 4.25% 0.92% 0.56% 0.43% 4.25% 0.92% 0.56% 0.43% 4.25% 0.92% 0.56% 0.43% 4.26% 0.92% 0.56% 0.43%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02 83.96 Pitch (MIDI #) 81.87 100.92 93.88 105.88 112.90 109.74	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC Notes Notes Notes that all harmonic partials are slightly sharp	Diversion (Hz) -0.01% -0.05% -0.05% -0.05% -0.05% -0.05% -0.00% -0.01% -0.01% -0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.00% -0.15% -0.12% -0.01% -0.01% -0.00% -	0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 8.8 2.7 7.0 12.0 Pitch Class 9.9 4.9 9.9 9.9 9.9 1.7 7.6
Sound 12 Min	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle – p – high frequency 915.346 0.0233464 1830.537 0.0072181233 2745.967 0.000668828 3661.170 0.000596157 4577.153 0.0002319333 5491.997 0.00068828 3661.20 0.00002319333 5491.997 0.00068828 3652 0.0016718497 4844.493 0.0042828533 3485.520 0.0016715497 4884.493 0.0016859013 6280.500 0.0004131287 1044.190 0.0003221047	100.00% 24.29% 8.66% 1.85% 0.39% Amp Ratio 100.00% 2.18% 0.51%	76, 76 88, 76 95, 78 100, 74 104, 61 110, 44 Pitch (MIDI #) 81, 68 93, 68 100, 70 105, 68 109, 55 112, 70 Pitch (MIDI #) 76, 97 96, 00 89, 00 100, 99 104, 83 110, 67 115, 02 83, 96 Pitch (MIDI #) 81, 87 100, 92 93, 88 105, 88 112, 90 109, 74 115, 57 97, 97	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 12.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC Notes Notes	Diversion (Hz) Diversion (Hz) 0.09% -0.01% -0.05% Diversion (Hz) 0.00% -0.01% 0.00% -0.01% 0.00% 0.14% 0.09% 49.77% Diversion (Hz) 0.00% 0.14% 0.09% 0.15% 0.15% 0.12% -0.01% 0.08% 0.09% 49.77%	0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 2.7 7.0 12.0 Pitch Class 9.9 9.9 4.9 9.9 9.9 1.7 7.6 6.2.0
Sound 12 Minum F Sound 13 Minum F Sound 14 Minum F Sound	1377.430 0.0067070267 2066.180 0.0023903033 2752.770 0.0005097007 3441.740 0.0004010143 4819.027 0.0001068659 iddle = p - high frequency	100.00% 24.29% 8.66% 1.85% 0.39% 1.45% 0.39% 2.87% 2.87% 0.51% 4mp Ratio 100.00% 2.18% 0.99% 0.51% 4mp Ratio 100.00% 2.25% 0.95% 0.43% 4.25% 0.92% 0.56% 0.43% 4.25% 0.92% 0.56% 0.43% 4.25% 0.92% 0.56% 0.43% 4.26% 0.92% 0.56% 0.43%	76, 76 88.76 95.78 100.74 104.61 110.44 Pitch (MIDI #) 81.68 93.68 100.70 105.68 109.55 112.70 Pitch (MIDI #) 76.97 96.00 89.00 100.99 104.83 110.67 115.02 83.96 Pitch (MIDI #) 81.87 100.92 93.88 105.88 112.90 109.74	0.00 12.00 19.02 23.99 27.85 33.68 Interval from Fundamental 0.00 19.02 24.00 27.86 31.02 Interval from Fundamental 0.00 19.03 12.03 24.02 27.86 33.70 38.05 6.99 Interval from Fundamental 0.00 19.03 24.02 27.86 33.70 38.05 6.99	Note that all harmonic partials are slightly flat Notes Notes INHARMONIC Notes Notes Notes that all harmonic partials are slightly sharp	Diversion (Hz) -0.01% -0.05% -0.05% -0.05% -0.05% -0.05% -0.00% -0.01% -0.01% -0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.00% -0.15% -0.12% -0.01% -0.01% -0.00% -	0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	4.8 4.8 4.7 8.6 2.4 Pitch Class 9.7 4.7 9.7 1.5 4.7 Pitch Class 5.0 0.0 5.0 8.8 2.7 7.0 12.0 Pitch Class 9.9 4.9 9.9 9.9 9.9 1.7 7.6

Sound 15 NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc	ch Class
1 2	1241.183 0.0512511667 2482.323 0.0045870833	100.00% 8.95%	86.95 98.95	0.00 12.00	Note that all harmonic	0.00% 0.00%	0.00% 0.00%	3.0 3.0
3	3719.757 0.0012779053	2.49%	105.96	19.00	partials are slightly flat	-0.10%	-0.02%	10.0
4 5	4961.010 0.0008136083 6202.173 0.00056331	1.59% 1.10%	110.94 114.81	23.99 27.85		-0.07% -0.06%	-0.01% -0.01%	2.9 6.8
6	7443.540 0.0003740457 1611.160 0.0001832483	0.73% 0.36%	117.96 91.47	31.01 4.52	INHARMONIC	-0.05% 29.81%	-0.01% 5.19%	10.0 7.5
,	1611.160 0.0001632463	0.36%	91.47	4.52	INHARMONIC	29.01%	5.19%	7.5
Sound 16	Top – p – high							
1	Frequency Amplitude 1965.430 0.0393233667	Amp Ratio 100.00%	94.91	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	0.00%	10.9
2 3	3927.360 0.0025249833 5892.770 0.00131529	6.42% 3.34%	106.90 113.92	11.98 19.01	Note that all harmonic partials are slightly flat	-0.09% -0.06%	-0.01% -0.01%	10.9 5.9
5	9822.300 0.0004070487	1.04%	122.77	27.85		-0.05%	-0.01%	2.8
4 6	7856.650 0.0002899063 11783.100 0.000231453	0.74% 0.59%	118.90 125.92	23.99 31.01		-0.06% -0.08%	-0.01% -0.01%	10.9 5.9
5	10479.667 0.000191449	0.49%	123.89	28.98	INHARMONIC	6.64%	0.91%	3.9
Sound 17	Ton – f – low							
NHN 1	Frequency Amplitude 1259.573 0.0680262	Amp Ratio 100.00%	Pitch (MIDI #) 87.21	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) Pitc 0.00%	ch Class 3.2
2	2516.450 0.0151994567	22.34%	99.19	11.98		-0.11%	-0.02%	3.2
3 4	3782.610 0.0081962467 5038.100 0.00142889	12.05% 2.10%	106.25 111.21	19.04 24.00		0.10% 0.00%	0.02% 0.00%	10.2 3.2
1 6	1628.523 0.0010669453 7547.220 0.0006850743	1.57% 1.01%	91.66 118.20	4.45 31.00	INHARMONIC	29.29% -0.14%	5.10% -0.02%	7.7 10.2
Sound 18 NHN	Top – f – high Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch)	ch Clase
1	2002.363 0.1258153333	100.00%	95.23	0.00		0.00%	0.00%	11.2
2 3	3999.547 0.00991878 6003.090 0.00610883	7.88% 4.86%	107.21 114.24	11.98 19.01	Note that all harmonic partials are slightly flat	-0.13% -0.07%	-0.02% -0.01%	11.2 6.2
4 5	8002.453 0.0026463233 10009.433 0.0010711143	2.10% 0.85%	119.22 123.09	23.98 27.86	, <u>,,</u>	-0.09% -0.02%	-0.01% 0.00%	11.2
J	10003.433 0.0010711143	0.0370	123.09	21.00		-0.02 /0	0.0070	5.1
Sound 19	Bottom – Staccato – C							
NHN 3	786.732 0.0072840833	Amp Ratio 146.48%	79.06	Interval from Fundamental 19.17	Notes louder than fundamental	Diversion (Hz) Diver	rsion (Pitch) Pitc 0.19%	ch Class 7.1
1	259.964 0.0049728633	100.00%	59.89	0.00		0.00%	0.00%	11.9
2 5	525.873 0.0032139933 1319.433 0.0021691033	64.63% 43.62%	72.09 88.01	12.20 28.12	note that almost all harmonics are significantly sharper	1.14% 1.51%	0.27% 0.30%	0.1 4.0
7 4	1834.403 0.001110584 1051.697 0.0009198727	22.33% 18.50%	93.72 84.09	33.83 24.20	than expected	0.81% 1.14%	0.15% 0.23%	9.7 0.1
4 9	2357.040 0.0004988573	10.03%	98.06	38.17		0.74%	0.13%	2.1
6 8	1574.893 0.00049672 2088.997 0.0001410032	9.99% 2.84%	91.08 95.97	31.19 36.08		0.97% 0.45%	0.18% 0.08%	7.1 12.0
11 10	2898.710 0.0001189663 2619.800 0.000097985	2.39% 1.97%	101.64 99.89	41.75 40.00		1.37% 0.78%	0.23% 0.13%	5.6 3.9
12	3225.277 8.01152E-005	1.61%	103.49	43.60	INHARMONIC	3.39%	0.56%	7.5
12 14	3118.330 7.51314E-005 3545.953 5.71901E-005	1.51% 1.15%	102.90 105.13	43.01 45.24	INHARMONIC	-0.04% -2.57%	-0.01% -0.43%	6.9 9.1
7 13	1899.653 4.78884E-005 3463.247 4.58389E-005	0.96% 0.92%	94.32 104.72	34.43 44.83	INHARMONIC INHARMONIC (?)	4.39% 2.48%	0.80% 0.41%	10.3 8.7
.0	1.555552 555	0.0270	10172	1 11.00		2.1070	0.1170	0.7
Sound 20	Bottom – Staccato – D							
NHN 1	Frequency Amplitude 291.475 0.0072622033	Amp Ratio 100.00%	Pitch (MIDI #) 61.87	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) Pitch 0.00%	ch Class 1.9
3	882.189 0.00429917	59.20%	81.04	19.17	note that almost all harmonics	0.89%	0.19%	9.0
2 5	583.103 0.0042519533 1464.383 0.00242627	58.55% 33.41%	73.87 89.82	12.00 27.95	are significantly sharper than expected	0.03% 0.48%	0.01% 0.09%	1.9 5.8
4 7 6	1173.807 0.0012027227 2048.370 0.001196994	16.56% 16.48%	85.99 95.63	24.12 33.76		0.68% 0.39%	0.14% 0.07%	2.0 11.6
	1759.347 0.0007944647	10.94%	92.99	31.12		0.60%	0.11%	9.0
9 8	2644.327 0.0001556793 2256.967 0.000152436	2.14% 2.10%	100.05 97.31	38.18 35.44	INHARMONIC	0.80% -3.21%	0.14% -0.58%	4.0 1.3
10 9	2983.277 0.0001515981 2505.123 0.0001342815	2.09% 1.85%	102.14 99.11	40.27 37.24	INHARMONIC INHARMONIC	2.35% -4.50%	0.40% -0.80%	6.1 3.1
11	3286.810 0.0001284494	1.77%	103.81	41.94	INHARMONIC (?)	2.51%	0.42%	7.8
8	2343.537 0.0001262653 2712.517 8.29504E-005	1.74% 1.14%	97.96 100.49	36.09 38.62	INHARMONIC	0.50% 3.40%	0.09% 0.58%	2.0 4.5
8 12	2446.373 7.03464E-005 3413.610 6.81486E-005	0.97% 0.94%	98.70 104.47	36.83 42.60	INHARMONIC INHARMONIC	4.91% -2.40%	0.85% -0.40%	2.7 8.5
11	3161.590 6.64407E-005	0.91%	103.14	41.27	INHARMONIC (?)	-1.39%	-0.23%	7.1
NHN	Bottom – Staccato – E Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
2 1	657.217 0.0121351667 327.717 0.00915768	132.51% 100.00%	75.95 63.90	12.05 0.00	louder than fundamental	0.27% 0.00%	0.06% 0.00%	3.9 3.9
3 5	990.265 1641.337 0.00697386 0.00239911	76.15% 26.20%	83.04 91.79	19.14 27.89	Exact same values for 2 nd & 3 rd reading suggests possible	0.72% 0.17%	0.15% 0.03%	11.0 7.8
4	1307.623 0.0012336767	13.47%	87.86	23.96	technical error	-0.25%	-0.05%	3.9
6 7	1971.343 0.0010801013 2305.270 0.000649622	11.79% 7.09%	94.96 97.67	31.06 33.77		0.26% 0.49%	0.05% 0.09%	11.0 1.7
8	2778.140 0.000147733	1.61%	100.90	37.00	INHARMONIC	5.97%	1.00%	4.9
9	3029.150 0.0001288947 3087.437 0.0001198577	1.41% 1.31%	102.40 102.73	38.50 38.83	INHARMONIC INHARMONIC	2.70% 4.68%	0.45% 0.78%	6.4 6.7
9 10	2963.447 0.0001061874 3412.527 0.000070576	1.16% 0.77%	102.02 104.46	38.12 40.56	INHARMONIC	0.47% 4.13%	0.08% 0.68%	6.0 8.5
4	1239.500 6.13398E-005	0.67%	86.93	23.03	INHARMONIC	-5.44%	-1.10%	2.9
_								
	Bottom – Staccato – F Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc	ch Class

				Appendix 1				
1 2 4 3 5 8 7 7 7 7 6 6 11 10 10	345.504 0.0108729333 693.929 0.0100302833 1393.203 0.00287306 1048.597 0.0028000167 1736.513 0.0011186727 2810.397 0.000267179 2455.230 0.0002023037 2768.199 0.0001992947 2386.073 0.0001355964 2555.960 0.0001100876 2333.330 9.1568E-005 1985.013 8.00344E-005 3692.380 6.03445E-005 3512.863 5.64717E-005	100.00% 92.25% 26.42% 25.75% 10.29% 2.46% 1.86% 1.83% 1.25% 1.01% 0.91% 0.74% 0.55% 0.51%	64.81 76.89 88.95 84.03 92.77 101.10 98.76 100.84 98.27 99.46 97.88 95.08 105.83 104.19	0.00 12.07 24.14 19.22 27.95 36.29 33.95 36.03 33.45 34.65 33.07 30.27 41.01 39.37 40.15	note that almost all harmonics are significantly sharper than expected INHARMONIC	0.00% 0.42% 0.81% 1.17% 0.52% 1.68% 1.52% 0.15% 5.68% -3.52% -4.25% -2.85% -2.80% 1.67%	0.00% 0.10% 0.16% 0.24% 0.10% 0.29% 0.26% 0.03% 0.24% 0.97% -0.63% -0.47% 0.47%	4.8 4.9 5.0 0.0 8.8 5.1 2.8 4.8 2.3 3.5 1.9 11.1 9.8 8.2
6	2211.090 4.87801E-005	0.45%	96.95	32.14	INHARMONIC	6.66%	1.16%	1.0
Sound 23	Bottom – Staccato – G							
NHN 1 2 4 4 3 5 7 8 9 9 9		Amp Ratio 100.00% 56.73% 28.22% 23.03% 14.88% 1.76% 1.31% 0.47% 0.43%	Pitch (MIDI #) 66.78 78.79 90.81 85.83 94.55 100.42 102.80 104.70 104.15	Interval from Fundamental 0.00 12.01 24.03 19.04 27.76 33.64 36.02 37.92 37.37	Notes INHARMONIC	Diversion (Hz) Di 0.00% 0.05% 0.15% 0.13% -0.58% -0.29% 0.11% -0.71% -3.81%	version (Pitch) 0.00% 0.01% 0.03% 0.03% -0.11% -0.05% 0.02% -0.12% -0.64%	Pitch Class 6.8 6.8 6.8 1.8 10.5 4.4 6.8 8.7 8.2
	Bottom – Staccato – A	Amp Patio	Ditch (MIDI #)	Interval from Fundamental	Notes	Divorcion (Hz) Di	version (Pitch)	Bitch Class
NHN 1 2 4 3 6 7 5	Frequency Amplitude 434.774 0.0197325 871.796 0.00862777 1741.147 0.00479818 1307.260 0.004362713 3609.547 0.0003652187 3050.473 0.0002500757 2175.010 0.0002204087	Amp Ratio 100.00% 43.72% 24.32% 22.11% 1.85% 1.27% 1.12%	Pitch (MIDI #) 68.79 80.84 92.81 87.85 99.82 102.52 96.67	10.00 12.04 24.02 19.06 31.03 33.73 27.87	Notes <u>Note that all harmonic</u> partials are slightly sharp	0.00% 0.26% 0.23% 0.23% 0.23% 0.03% 0.23%	0.00% 0.00% 0.02% 0.04% 0.01% 0.04% 0.01%	8.8 8.8 8.8 3.9 3.8 6.5
	Sotom - Staccato - B Frequency Amplitude 485.720 0.0201237667 976.755 0.00394583 1467.833 0.00362345 1955.777 0.00250202 2931.750 0.0003245233 3442.023 0.0001281582	Amp Ratio 100.00% 19.61% 18.01% 12.43% 1.61% 0.64%	Pitch (MIDI #) 70.71 82.81 89.86 94.83 101.83 104.61	Interval from Fundamental 0.00 12.09 19.15 24.11 31.12 33.90	Notes <u>Note that all harmonic</u> <u>partials are sharp</u>	Diversion (Hz) Div 0.00% 0.55% 0.73% 0.66% 0.60% 1.23%	version (Pitch) 0.00% 0.11% 0.14% 0.12% 0.10% 0.20%	Pitch Class 10.7 10.8 5.9 10.8 5.8 8.6
Sound 26	Bottom – Staccato – high C							
		Amp Ratio 100.00% 51.38% 18.15% 16.89% 3.72% 0.73% 0.49% 0.37%	Pitch (MIDI #) 71.79 90.88 95.79 83.83 99.71 102.82 96.69 103.36 74.11	Interval from Fundamental 0.00 19.08 23.99 12.04 27.92 31.03 24.89 31.56 2.32	Notes INHARMONIC INHARMONIC INHARMONIC	Diversion (Hz) Diversion (Hz) Diversion (Hz) 0.00% 0.38% -0.03% 0.24% 0.34% 0.06% 5.30% 3.19% 14.35%	version (Pitch) 0.00% 0.07% -0.01% 0.05% 0.06% 0.01% 0.93% 0.53% 3.23%	Pitch Class 11.8 6.9 11.8 11.8 3.7 6.8 0.7 7.4 2.1
Sound 27	Bottom – Legato – C		D' 1 (111D1 (1)			D:	. (8% 1)	
NHN 3 1 2 5 7 6 4 8 9 10 12 13 14 11 15 22 18 17 23 13	Frequency 775.601 0.0091438667 258.588 0.0070035533 517.060 0.00431488 1292.807 0.00285194 1809.903 0.0016438667 1551.437 0.0013365063 1034.763 0.0010204657 2068.650 0.0008227297 2327.507 0.0003610747 2585.403 0.0002416183 3623.147 0.0002416183 3623.147 0.000166255 2847.753 0.000123474 3881.447 0.0001662363 5688.297 7.29628E-005 4398.050 5.52674E-005 5949.720 0.00051284 3244.470 4.74953E-005	Amp Ratio 130.56% 100.00% 61.60% 61.60% 19.08% 14.57% 11.75% 4.35% 4.10% 4.35% 4.10% 1.76% 1.52% 1.04% 1.01% 0.79% 0.73% 0.68%	Pitch (MIDI #) 78.81 59.80 71.79 87.66 93.48 90.82 83.80 95.80 97.84 99.66 102.82 104.21 105.50 101.33 106.69 113.31 109.84 108.86 114.09 103.59	Interval from Fundamental 19.02 0.00 12.00 27.86 33.69 31.02 24.01 36.00 38.04 39.86 43.02 44.41 45.70 41.53 46.89 53.51 50.05 49.06 54.29 43.79	Notes louder than fundamental only a minute amount of diversion across all harmonic partials	Diversion (Hz) Divers	Version (Pitch) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.01% 0.00%	9.5 5.3 10.7 5.3 1.8 0.9 6.1 7.6
NHN 1 3 2 5 6 4 7 8 8 9 13	290.218 0.0166889 870.721 0.00807177 580.432 0.0060715 1449.687 0.0043701633 1739.593 0.00427965 1161.383 0.00363073 2028.063 0.00327195 2318.470 0.000983061 2608.870 0.000460795 3762.627 0.00042656997	100.00% 75.66% 56.91% 40.96% 40.11% 34.03% 30.67% 9.21% 4.32% 4.00%	Pitch (MIDI #) 61.80 80.82 73.80 89.64 92.80 85.80 95.45 97.77 99.81	Interval from Fundamental 0.00 19.02 12.00 27.85 31.00 24.01 33.66 35.98 38.02 44.36	Notes only a minute amount of diversion across most harmonic partials	Diversion (Hz) Diversion (Hz) Diversion (Hz) Diversion (11% 0.00% 0.01% 0.01% 0.04% 0.17% 0.14% 0.12% 0.12% 0.027%	0.00% 0.00% 0.00% -0.02% -0.02% -0.03% -0.03% -0.02% -0.02%	1.8 8.8 1.8 5.6 8.8 11.5 1.8 3.8 10.2
11 12 8 18	3187.173 0.0004070477 3477.220 0.0003739633 2267.537 0.0001191473 5215.437 9.89465E-005	3.82% 3.51% 1.12% 0.93%	103.28 104.79 97.39 111.81	41.48 42.99 35.59 50.01	INHARMONIC	-0.16% -0.15% -2.33% -0.16%	-0.03% -0.03% -0.42% -0.03%	7.3 8.8 1.4 3.8

14				Appendix 1				
	4056.403 8.71247E-005	0.82%	107.46	45.66		-0.16%	-0.03%	11.5
8	2423.263 5.65986E-005	0.53%	98.54	36.74	INHARMONIC	4.37%	0.76%	2.5
	ottom – Legato – E Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Bitch)	Bitch Class
2	647.355 0.0212673667	175.53%	75.68	12.00	louder than fundamental	-0.02%	0.00%	3.7
1	323.740 0.0121160667	100.00%	63.69	0.00		0.00%	0.00%	3.7
3	971.083 0.01044215 1298.370 0.00543749	86.18% 44.88%	82.71 87.73	19.02 24.05	very little diversion across harmonic partials,	-0.01% 0.26%	0.00% 0.05%	10.7 3.7
6	1947.713 0.0029631967	24.46%	94.75	31.07	almost all are sharp	0.27%	0.05%	10.8
7	2271.387 0.0023842267	19.68%	97.42	33.73		0.23%	0.04%	1.4
5 11	1621.487 0.0021431257 3569.893 0.000691086	17.69% 5.70%	91.58 105.24	27.89 41.56		0.17% 0.25%	0.03% 0.04%	7.6 9.2
10	3244.100 0.0006597523	5.45%	103.59	39.90		0.21%	0.03%	7.6
8 9	2597.207 0.0004651813 2918.523 0.0004455183	3.84% 3.68%	99.74 101.76	36.05		0.28%	0.05% 0.03%	3.7 5.8
14	4541.297 0.000216286	1.79%	109.41	38.07 45.72		0.17% 0.20%	0.03%	1.4
19	6165.743 0.0001466163	1.21%	114.70	51.02		0.24%	0.04%	6.7
22 21	7138.480 9.95485E-005 6812.923 9.44419E-005	0.82% 0.78%	117.24 116.43	53.55 52.74		0.23% 0.21%	0.03% 0.03%	9.2 8.4
21	0012.020 0.444102 000	0.1070	110.40	02.14		0.2170	0.0070	0.4
Sound 30 Bo	ottom – Legato – F							
		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
2	688.301 0.0274523667	186.25%	76.75	12.00	louder than fundamental	-0.01%	0.00%	4.7
1 4	344.172 0.0147391667 1376.830 0.0096246767	100.00% 65.30%	64.75 88.75	0.00 24.00	only a minute amount of	0.00% 0.01%	0.00% 0.00%	4.7 4.7
3	1032.740 0.0053421933	36.24%	83.77	19.02	diversion across most	0.02%	0.00%	11.8
6 5	2065.433 0.0020020733	13.58%	95.77	31.02	harmonic partials	0.02%	0.00%	11.8
8	1720.750 0.00188243 2749.997 0.0016189167	12.77% 10.98%	92.61 100.73	27.86 35.98		-0.01% -0.12%	0.00% -0.02%	8.6 4.7
9	3094.170 0.001111625	7.54%	102.77	38.02		-0.11%	-0.02%	6.8
7 10	2409.943 0.0010541243 3438.720 0.0002820987	7.15% 1.91%	98.44 104.60	33.69 39.85		0.03% -0.09%	0.01% -0.01%	2.4 8.6
12	4126.800 0.000190406	1.29%	107.75	43.01		-0.08%	-0.01%	11.8
14	4815.270 0.0001797003	1.22%	110.42	45.68		-0.07%	-0.01%	2.4
13 16	4471.140 0.0001488963 5501.860 0.0001472201	1.01% 1.00%	109.14 112.73	44.39 47.98		-0.07% -0.09%	-0.01% -0.01%	1.1 4.7
17	5847.050 0.0001398467	0.95%	113.79	49.04		-0.07%	-0.01%	5.8
18	6190.083 0.0001224723	0.83%	114.77	50.03		-0.08%	-0.01%	6.8
	ottom – Legato – G Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Bitch)	Bitch Class
1	386.617 0.0155614	100.00%	66.76	0.00	Notes	0.00%	0.00%	6.8
2	773.367 0.0146073667	93.87%	78.76	12.00	very little diversion	0.02%	0.00%	6.8
4 3	1541.177 0.0125947333 1156.720 0.0065914133	80.94% 42.36%	90.70 85.73	23.94 18.97	across harmonic partials, almost all are flat	-0.34% -0.27%	-0.07% -0.05%	6.7 1.7
6	2314.883 0.0018164767	11.67%	97.74	30.98	unnost un arc nat	-0.21%	-0.04%	1.7
5	1927.670 0.0015909153	10.22%	94.58	27.81		-0.28%	-0.05%	10.6
8 7	3086.413 0.0006141887 2701.677 0.000463893	3.95% 2.98%	102.72 100.42	35.96 33.66		-0.21% -0.17%	-0.04% -0.03%	6.7 4.4
9	3471.350 0.000427423	2.75%	104.76	38.00		-0.24%	-0.04%	8.8
10	3857.597 0.000360503	2.32% 0.89%	106.59 113.60	39.82		-0.22% -0.28%	-0.04% -0.04%	10.6 5.6
15 11	5783.103 0.0001380583 4245.057 0.0001232648	0.89%	108.24	46.83 41.48		-0.28%	-0.04%	0.2
13	5013.967 0.0001211903	0.78%	111.12	44.36		-0.24%	-0.04%	3.1
14 6	5400.477 0.0001188637 2444.130 0.0001070567	0.76% 0.69%	112.41 98.68	45.65 31.92	INHARMONIC	-0.22% 5.36%	-0.03% 0.93%	4.4 2.7
	21111100 0.0001010001	0.0070	30.00	01.02		0.0070	0.0070	2
Sound 32 Bo	ottom – Legato – A							
		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)		
1	431.619 0.0206000333	100.00%	68.67	0.00		0.00%	`0.00%	8.7
1 2 4					Notes <u>very little diversion</u> across harmonic partials.			
1 2 4 3	431.619 0.0206000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709	100.00% 71.78% 58.88% 22.86%	68.67 80.67 92.72 87.74	0.00 12.00 24.05 19.07	very little diversion	0.00% 0.01% 0.31% 0.29%	0.00% 0.00% 0.06% 0.06%	8.7 8.7 8.7 3.7
1 2 4 3 5	431.619 0.0206000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833	100.00% 71.78% 58.88% 22.86% 10.06%	68.67 80.67 92.72 87.74 96.57	0.00 12.00 24.05 19.07 27.91	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26%	0.00% 0.00% 0.06% 0.06% 0.05%	8.7 8.7 8.7 3.7 0.6
1 2 4 3 5 6 7	431.619 0.0206000333 863.300 0.10147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53%	68.67 80.67 92.72 87.74 96.57 99.72 102.39	0.00 12.00 24.05 19.07 27.91 31.06 33.72	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19%	0.00% 0.00% 0.06% 0.06% 0.05% 0.04% 0.03%	8.7 8.7 8.7 3.7 0.6 3.7 6.4
1 2 4 3 5 6	431.619 0.0206000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.000933637 3460.570 0.000213624	71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22%	0.00% 0.00% 0.06% 0.06% 0.05% 0.04% 0.03%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7
1 2 4 3 5 6 7	431.619 0.0206000333 863.300 0.10147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53%	68.67 80.67 92.72 87.74 96.57 99.72 102.39	0.00 12.00 24.05 19.07 27.91 31.06 33.72	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19%	0.00% 0.00% 0.06% 0.06% 0.05% 0.04% 0.03%	8.7 8.7 8.7 3.7 0.6 3.7 6.4
1 2 4 3 5 6 7	431.619 0.0206000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.000933637 3460.570 0.000213624	71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22%	0.00% 0.00% 0.06% 0.06% 0.05% 0.04% 0.03%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7
1 2 4 3 5 6 7 8 9	431.619 0.026600033 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753	71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22%	0.00% 0.00% 0.06% 0.06% 0.05% 0.04% 0.03%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7
1 2 4 3 5 6 7 8 9	431.619 0.0266000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 0.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09	very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22% 0.22%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8
1 2 4 3 5 6 7 7 8 9 9 Sound 33 Bo	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09	very little diversion across harmonic partials, all are slightly sharp Notes	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22% 0.22%	0.09% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8
Sound 33 Book NHN F	431.619 0.0266000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09	very little diversion across harmonic partials, all are slightly sharp Notes	0.00% 0.01% 0.31% 0.29% 0.21% 0.11% 0.22% 0.22% 0.28%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8
Sound 33 Book NHN F 1 1 2 4 3 3 3	431.619 0.0266000333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1453.960 0.0036632267	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02	very little diversion across harmonic partials, all are slightly sharp Notes	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22% 0.28%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7
50und 33 Booman F F F F F F F F F F F F F F F F F F F	431.619 0.0266000333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.0001518753 attom — Legato — B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.086148033 1453.960 0.0038632267 2423.120 0.00206715	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 0.74% 0.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.21% 0.19% 0.22% 0.28% 0.28%	0.00% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5
Sound 33 Book NHN F 1 1 2 4 3 3 3	431.619 0.0266000333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1453.960 0.0036632267	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.26% 0.21% 0.19% 0.22% 0.28%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7
Sound 33 Boo NHN 1 2 4 3 5 5 7 6 6 8	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.0001518753 ottom — Legato — B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1453.960 0.0036632267 2423.120 0.00206715 3394.303 0.00073072 2997.520 0.0005174977 3878.820 0.0004210247	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 4.53% 0.74% 0.74% 4.63% 4.53% 1.04% 0.74% 1.74% 6.82% 2.55% 1.71%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.29% 0.21% 0.29% 0.22% 0.22% 0.28% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01%	0.09% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.05% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7
Sound 33 Book NHN F 1 1 2 4 3 3 5 7 7 6 8 8 10	431.619 0.026600033 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000218623 10384.8497 0.0036848033 1938.497 0.0036848033 1938.497 0.0036848033 1938.497 0.0036848033 1938.497 0.000269715 2423.120 0.000269715 2394.303 0.000773072 2907.520 0.0005174977 3478.820 0.0004210247	100.00% 71.78% 88.88% 22.86% 4.63% 4.63% 4.53% 0.74% 0.74% 4.68% 1.04% 0.74% 1.04% 1.74% 6.82% 2.55% 1.71% 1.39% 0.55%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.31% 0.29% 0.21% 0.19% 0.22% 0.28% 0.28% 0.00% 0.00% 0.00% 0.01% 0.01% 0.06% 0.00%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 10.7 5.7 2.5 8.4 5.7 10.7
Sound 33 Boo NHN 1 2 4 3 5 5 7 6 6 8	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.0001518753 http://doi.org/10.0001518753	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 4.53% 0.74% 0.74% 4.63% 4.53% 1.04% 0.74% 1.74% 6.82% 2.55% 1.71%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.29% 0.21% 0.29% 0.22% 0.22% 0.28% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01%	0.09% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.05% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7
Sound 33 Book NHN F 1 2 4 4 3 5 5 7 6 6 8 10 12	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.0001518753 bittom — Legato — B requency Amplitude 484.587 0.0303243667 969.211 0.0011464533 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.8497 0.0085148034 1938.8497 0.0085148034 1938.8497 0.0085148034 1938.8497 0.0085148034 1938.8497 0.0085148034 1938.8497 0.008514804	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% 4.63% 4.53% 1.04% 1.04% 1.04% 1.04% 1.04% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.21% 0.29% 0.21% 0.19% 0.22% 0.28% Diversion (H2) 0.00% 0.00% 0.01% 0.01% 0.06% 0.00% 0.05% 0.05%	0.00% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7 2.5 5.7
Sound 33 Book NHN F 1 1 2 4 3 3 5 7 6 6 8 8 10 12 9	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0365148033 1938.497 0.0085148033 1938.497 0.008512267 2423.120 0.0005174977 33978.820 0.0004210247 4488.090 0.0001566539 5817.833 0.000154617 4363.220 0.0001229107	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% 4.63% 4.53% 1.04% 1.04% 1.04% 1.04% 1.04% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05% 1.05%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.21% 0.29% 0.21% 0.19% 0.22% 0.28% Diversion (H2) 0.00% 0.00% 0.01% 0.01% 0.06% 0.00% 0.05% 0.05%	0.00% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7 2.5 5.7
Sound 33 Book NHN F F F F F F F F F F F F F F F F F F	431.619 0.0265000333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303433667 969.211 0.0111464533 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.008073072 22907.520 0.0000173072 3878.820 0.0004210247 4848.090 0.000166539 5817.833 0.0001229107	100.00% 71.78% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% 4.63% 4.53% 1.04% 0.74% 1.04% 1.04% 1.04% 1.04% 0.75% 28.08% 12.74% 6.82% 2.55% 0.55% 0.55% 0.51% 0.41%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.29% 0.21% 0.21% 0.29% 0.22% 0.28% 0.28% Diversion (Hz) I 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.06% 0.06% 0.05% 0.05% 0.05%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 10.7 5.7 2.5 8.4 5.7 10.7
Sound 33 Book NHN F F F F F F F F F F F F F F F F F F	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.0001518753 attom — Legato — B fequency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1453.960 0.0036332267 2423.120 0.00026715 3394.303 0.000773072 2907.520 0.0005174977 3878.320 0.0005174977 3878.320 0.000166539 5817.833 0.00015617477 4363.220 0.0001229107	100.00% 71.78% 58.88% 22.86% 110.06% 4.63% 4.53% 4.53% 1.04% 0.74% Amp Ratio 100.00% 38.76% 36.76% 12.74% 6.82% 2.55% 1.71% 0.41%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials,	0.00% 0.01% 0.29% 0.22% 0.22% 0.28% Diversion (Hz) I 0.00% 0.00% 0.01% 0.01% 0.01% 0.06% 0.05% 0.05% 0.05% 0.05%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7 2.5 5.7
Sound 33 Book NHN F 6 8 10 12 9 9 Sound 34 Book NHN F 1 1 2 1 2 9 9 Sound 34 Book NHN F 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.000546217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.030243667 969.211 0.0111464533 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.493 0.00073072 22907.520 0.0005174977 3878.820 0.0004210247 4848.090 0.000166539 5817.833 0.000154617 4363.220 0.0001229107	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 4.53% 10.04% 0.74% Amp Ratio 100.00% 6.82% 2.55% 1.71% 0.41% Amp Ratio 100.004 45.76%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 82.67 94.67 82.67 94.67 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 0.00 12.04	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.21% 0.29% 0.21% 0.19% 0.22% 0.28% Diversion (Hz) 0.00% 0.00% 0.01% 0.01% 0.01% 0.06% 0.05% 0.05% 0.05% 0.05% 0.05% 0.04%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.05% 0.01% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 4.5.7 10.7 2.5 5.7 0.7
Sound 33 Boo NHN F 1 1 2 4 3 3 5 7 7 6 8 8 10 11 2 9 9 Sound 34 Boo NHN F 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	431.619 0.0265000333 863.300 0.0147860667 1731.800 0.0141284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1453.960 0.003632267 2423.120 0.00206715 3394.303 0.000773072 2907.520 0.0005174977 4848.090 0.00016559 5817.633 0.000154617 4363.220 0.0001229107	100.00% 71.78% 88.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% 100.00% 36.76% 28.08% 12.74% 6.82% 2.55% 1.71% 0.51% 0.41%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.21% 0.28% 0.21% 0.19% 0.22% 0.28% Diversion (Hz) I 0.00% 0.00% 0.01% 0.01% 0.01% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% Diversion (Pitch) 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 5.7 2.5 5.7 0.7 2.5 5.7 0.7
Sound 33 Book NHN F 1 2 4 3 3 5 5 7 7 6 6 8 8 10 112 9 9 Sound 34 Book NHN F 1 1 2 4 3 3 5 5 7 7 6 6 8 8 10 112 9 9 Sound 34 Book NHN F 1 1 2 4 3 3 3 5 5 7 7 6 6 8 8 10 112 9 9 Sound 34 Book NHN F 1 1 2 4 3 3 3 5 5 7 7 6 6 8 8 10 112 9 9 Sound 34 Book NHN F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.0001518753 bitom - Legato - B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.009514977 3378.820 0.0004210247 4384.990 0.000166539 5817.833 0.0001229107 bitom - Legato - high C requency Amplitude 517.621 0.0268904 1037.437 0.01230534 207.553 0.0092187567	100.00% 71.78% 22.86% 10.06% 4 63% 4 53% 4 53% 1.04% 0.74% Amp Ratio 100.00% 28.08% 12.74% 6.82% 2.55% 0.51% 0.41%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 82.67 94.67 89.69 98.54 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03 19.05	very little diversion across harmonic partials, all are slightly sharp Notes very little diversion across harmonic partials, almost all are slightly sharp Notes very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.21% 0.28% 0.21% 0.19% 0.22% 0.28% Diversion (Hz) I 0.00% 0.00% 0.01% 0.01% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05%	0.00% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 4.5.7 10.7 2.5 5.7 0.7
Sound 33 Book NHN F 1 1 2 4 3 3 5 7 7 6 8 8 10 112 9 9 Sound 34 Book NHN F 5 5 5 5 5 5 5 6 6 8 8 10 11 12 9 9 Sound 34 Book NHN F 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009546217 3027.113 0.0009335637 3027.113 0.0009335637 3027.113 0.00013624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000218624 3895.570 0.000218624 3895.570 0.000218624 3895.570 0.000218624 3895.570 0.000518783 1938.497 0.003632267 2423.120 0.00208715 3394.303 0.00073072 2907.520 0.0005174977 3378.820 0.0004210247 4848.990 0.000166539 5817.833 0.0007186417 4363.220 0.0001229107	100.00% 71.78% 88.88% 22.86% 10.06% 4.63% 4.53% 1.04% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74% 6.82% 2.55% 0.51% 0.41% Amp Ratio 100.00% 45.76% 34.28% 3.78% 3.48%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70 108.72 Pitch (MIDI #) 71.81 83.85 95.85 90.86 105.53 99.70	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03 19.05 33.72 27.89	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.21% 0.29% 0.21% 0.19% 0.22% 0.28% Diversion (Hz) I 0.00% 0.01% 0.01% 0.01% 0.05% 0.05% 0.05% 0.05% 0.05% 0.04%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 5.7 0.7 2.5 5.7 0.7
Sound 33 Book NHN F F F F F F F F F F F F F F F F F F	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.000548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.0085148033 1938.497 0.000514533 1938.497 0.000514533 1938.497 0.000514533 1938.497 0.0005144533 1938.497 0.0005145473 373.737 0.000166539 5817.833 0.000129107 bitom – Legato – high C requency Amplitude 517.621 0.000514617 4363.220 0.0002129107	100.00% 71.78% 58.88% 22.86% 10.06% 4.63% 4.53% 4.53% 1.0.44% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74% 6.82% 2.55% 1.71% 0.41% Amp Ratio 100.00% 45.76% 34.28% 28.13% 3.78% 3.44%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.29% 0.21% 0.19% 0.22% 0.28% 0.28% Diversion (H2) I 0.00% 0.01% 0.01% 0.01% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.06% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.05% 0.01% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 2.5 8.4 5.7 10.7 2.5 5.7 0.7
Sound 33 Book NHN F 1 1 2 4 3 3 5 7 7 6 8 8 10 112 9 9 Sound 34 Book NHN F 5 5 5 5 5 5 5 6 6 8 8 10 11 12 9 9 Sound 34 Book NHN F 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	431.619 0.0265000333 663.300 0.0147860667 1731.800 0.0147860667 1731.800 0.0121244667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.0001518753 bitom – Legato – B requency Amplitude 484.587 0.0303243667 969.211 0.0111464533 1938.497 0.03652267 2423.120 0.0026715 3394.303 0.000773072 2907.520 0.0005174977 3878.820 0.0004210247 4484.809 0.00016553 5817.833 0.000154617 4363.220 0.0001229107	100.00% 71.78% 88.88% 22.86% 10.06% 4.63% 4.53% 4.53% 1.04% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74% 6.82% 2.55% 1.71% 0.41% Amp Ratio 100.00% 45.76% 34.28% 34.48% 3.25% 3.78% 3.44% 3.25%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 110.54 113.70 108.72 Pitch (MIDI #) 71.81 83.85 90.86 105.53 99.70 102.86 111.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03 19.05 33.72 27.89 31.04 39.90	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.21% 0.28% 0.21% 0.19% 0.22% 0.28% 0.28% Diversion (Hz) I 0.00% 0.00% 0.01% 0.01% 0.01% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.14% 0.14% 0.14% 0.14%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 5.7 0.7 2.5 5.7 0.7
Sound 33 Book NHN F 1 2 4 4 3 3 5 5 7 6 6 8 8 10 12 9 9 Sound 34 Book NHN F 5 6 6 10 9 9 12	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0121284667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.009546217 3027.113 0.009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3896.00038632267 2423.120 0.00026715 3394.303 0.00073072 2207.520 0.0005174977 3878.820 0.0004210247 4848.090 0.000166539 5817.633 0.0001299107 20ttom – Legato – high C crequency	100.00% 71.78% 88.88% 22.86% 110.06% 4.63% 4.53% 1.04% 0.74% Amp Ratio 100.00% 36.76% 28.08% 12.74% 6.82% 2.55% 1.71% 0.41% Amp Ratio 100.00% 45.76% 34.28% 28.13% 3.178% 3.178% 3.178% 3.121% 1.03% 1.03%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 82.67 94.67 82.67 94.67 101.69 106.68 110.54 113.70 108.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03 19.05 33.72 27.89 31.04 39.90 38.09 43.06	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.21% 0.28% 0.22% 0.28% 0.28% 0.28% 0.28% 0.28% 0.28% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.06% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.06% 0.05% 0.16% 0.16% 0.14% 0.20% 0.16% 0.14% 0.21% 0.21% 0.21%	0.00% 0.06% 0.06% 0.06% 0.05% 0.04% 0.05% 0.04% 0.05% 0.04% 0.05% 0.01% 0.00% 0.00% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%	8.7 8.7 8.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 2.5 8.4 5.7 10.7 2.5 5.7 0.7
Sound 33 Book NHN F 1 1 2 4 3 3 5 5 7 7 6 6 8 8 10 11 2 9 9 5 5 6 6 7 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	431.619 0.026600333 863.300 0.0147860667 1731.800 0.0147860667 1298.593 0.004709 2163.600 0.0020714833 2595.187 0.0009548217 3027.113 0.0009335637 3460.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 3895.570 0.000213624 389497 0.0038323667 969.211 0.0111464533 1938.497 0.003832267 2423.120 0.003632267 2423.120 0.003632267 2423.120 0.00061539 5817.833 0.0007504797 3878.820 0.0004210247 4848.090 0.000166539 5817.833 0.0001229107	100.00% 71.78% 88.88% 22.86% 4 63% 4 63% 4 53% 1 .04% 0.74% Amp Ratio 100.00% 28.08% 12.74% 6.82% 2.55% 1.71% 0.41% Amp Ratio 100.00% 34.76% 34.28% 34.28% 34.48% 3.44% 3.42% 3.25% 1.21%	68.67 80.67 92.72 87.74 96.57 99.72 102.39 104.71 106.76 Pitch (MIDI #) 70.67 82.67 94.67 89.69 98.54 104.37 101.69 106.68 113.70 108.72 Pitch (MIDI #) 71.81 83.85 95.85 90.86 105.53 99.70 102.86 111.72	0.00 12.00 24.05 19.07 27.91 31.06 33.72 36.04 38.09 Interval from Fundamental 0.00 12.00 24.00 19.02 27.86 33.70 31.02 36.01 39.87 43.03 38.05 Interval from Fundamental 0.00 12.04 24.03 19.05 33.72 27.89 31.04 39.90 38.09	very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp Notes Very little diversion across harmonic partials, almost all are slightly sharp	0.00% 0.01% 0.29% 0.21% 0.28% 0.22% 0.28% 0.28% 0.28% 0.28% 0.28% 0.00% 0.00% 0.00% 0.00% 0.01% 0.01% 0.04% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.06% 0.16% 0.16% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.21% 0.22% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.12%	0.00% 0.06% 0.06% 0.05% 0.04% 0.03% 0.04% 0.05% 0.04% 0.05% 0.04% 0.05% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00%	8.7 8.7 8.7 3.7 0.6 3.7 6.4 8.7 10.8 Pitch Class 10.7 10.7 5.7 2.5 8.4 5.7 10.7 2.5 5.7 0.7 2.5 8.7 1.8 11.8 11.8 11.8 11.8 11.8 11.8 1

Sound 35 NHN	Break - Staccato – C# Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Pi	tch Class
1	552.964 0.0170976667 1109.227 0.01096929	100.00% 64.16%	72.96 85.01	0.00 12.05		0.00% 0.30%	0.00%	1.0 1.0
3	1665.250 0.0038861167	22.73%	92.04	19.09		0.38%	0.07%	8.0
4		19.58% 2.85%	97.01 100.88	24.05 27.92		0.31% 0.35%	0.06% 0.06%	1.0 4.9
7	3313.050 0.0004814807	2.82% 0.98%	103.95 106.63	30.99 33.68		-0.14% -0.07%	-0.02% -0.01%	8.0 10.6
4	2059.873 0.000123266	0.72%	95.72	22.77	INHARMONIC	-6.87%	-1.27%	11.7
6		0.68% 0.56%	103.51 104.39	30.56 31.44	INHARMONIC INHARMONIC	-2.64% 2.43%	-0.45% 0.40%	7.9 8.4
7	7 3675.283 9.07465E-005 4992.350 9.07135E-005	0.53% 0.53%	105.75 111.05	32.79 38.09	INHARMONIC	-5.05% 0.31%	-0.84% 0.05%	9.7
	1002.000 0.07 1002 000	0.0070	111.00	30.33		0.0176	0.0070	0
	Break - Staccato – D		54 L 41151 (0			D	. (5)(1)	
NHN 1	Frequency Amplitude 1 588.475 0.0188166	100.00%	74.03	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	0.00%	2.
3		72.28% 62.94%	86.08 93.06	12.05 19.03		0.28% 0.04%	0.06% 0.01%	2. 9.
4		17.40% 5.36%	98.03 101.92	24.00 27.89		-0.01% 0.13%	0.00% 0.02%	2. 5.
6	3521.630 0.0004490143	2.39% 2.35%	105.01 90.29	30.97 16.25	INHARMONIC	-0.26% -14.77%	-0.04% -2.97%	9. 6.
7	4120.110 0.0002912957	1.55%	107.73	33.69		0.02%	0.00%	11.
4	4708.863 0.000275257	1.52% 1.46%	97.35 110.04	23.32 36.00	INHARMONIC	-3.86% 0.02%	-0.69% 0.00%	1. 2.
5	2759.290 0.0001837043	0.98% 0.93%	100.78 112.08	26.75 38.05	INHARMONIC	-6.22% 0.03%	-1.09% 0.01%	4. 4.
Ş		0.54%	111.79	37.76	INHARMONIC	-1.61%	-0.25%	3
und 37 NHN	Break - Staccato – Eb Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
1		100.00% 33.43%	74.94 86.91	0.00 11.97	Note that all harmonic	0.00% -0.17%	0.00% -0.03%	2. 2.
3		28.47% 5.73%	93.92 98.91	18.98 23.97	partials are slightly flat	-0.24% -0.18%	-0.04% -0.03%	9. 2.
6	3710.873 0.000594642	1.99%	105.91	30.97		-0.27%	-0.04%	9.
5 7	4327.763 0.0002318167	1.66% 0.78%	102.74 108.58	27.80 33.63		-0.37% -0.31%	-0.06% -0.05%	6. 0.
5		0.65% 0.51%	101.02 98.43	26.08 23.49	INHARMONIC INHARMONIC	-9.81% -2.89%	-1.74% -0.51%	5 2
4		0.48%	97.93	22.99	INHARMONIC	-5.67%	-1.02%	1
und 38	Break - Staccato – E							
NHN 1	Frequency Amplitude 1 657.008 0.0310763567	Amp Ratio 100.00%	Pitch (MIDI #) 75.94	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	ion (Pitch) Pi	tch Class 3.
3		38.16% 27.62%	87.94 94.93	12.00 18.99	Note that all harmonic partials are slightly flat	-0.02% -0.17%	0.00% -0.03%	3. 10.
4	2624.310 0.0016018667	5.15%	99.92	23.98	paruais are siignuy nat	-0.14%	-0.02%	3.
5	2296.760 0.0008974533	3.60% 2.89%	103.78 97.61	27.84 21.67	INHARMONIC	-0.14% 16.53%	-0.02% 2.79%	7. 1.
6		1.96% 1.95%	106.95 91.85	31.01 15.91	INHARMONIC	-0.06% -16.45%	-0.01% -3.28%	10. 7.
4	2950.903 0.0004027937	1.30% 1.28%	101.95 105.43	26.01 29.49	INHARMONIC INHARMONIC	12.29% 9.83%	2.01% 1.56%	5 9
7	4596.553 0.000386212	1.24%	109.62	33.68	INIARMONIO	-0.05%	-0.01%	1
8	5576.750 0.0002516	0.80% 0.81%	111.93 112.97	35.99 37.03	INHARMONIC	-0.06% 6.10%	-0.01% 0.92%	3 5
5	3153.787 0.0001486533	0.48%	103.10	27.16	INHARMONIC	-4.00%	-0.68%	7
	Break – Legato – C#		54 L (AUS) (0			D	(8)(1)	
NHN 1	Frequency Amplitude 1 549.663 0.0199207	Amp Ratio 100.00%	72.85	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	0.00%	0.
2		24.94% 14.27%	84.85 96.88	11.99 24.03	very little diversion across harmonic partials,	-0.04% 0.17%	-0.01% 0.03%	0
3	1651.087 0.00135289	6.79%	91.89	19.04	ao. oco marmomo partialoj	0.13%	0.02%	7
5	2751.753 0.000469212	2.56% 2.36%	103.89 100.74	31.04 27.88		0.12% 0.13%	0.02% 0.02%	7 4
7		1.00% 0.58%	106.55 97.85	33.70 25.00	INHARMONIC	0.08% 5.92%	0.01% 1.03%	10 1
7	3808.107 0.0001083951	0.54% 0.53%	106.36 108.87	33.51 36.02	INHARMONIC	-1.03% 0.10%	-0.17% 0.02%	10
4	2401.593 0.000101108	0.51%	98.38	25.53	INHARMONIC	9.23%	1.58%	2
C	3043.513 6.95592E-005	0.35%	102.48	29.63	INHARMONIC	-7.72%	-1.34%	6
	Break – Legato – D							
NHN 1	Frequency Amplitude 1 582.763 0.0172819667	Amp Ratio 100.00%	73.86	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	0.00%	1.
2		67.73% 47.06%	85.89 92.92	12.02 19.05	very little diversion across harmonic partials.	0.13% 0.19%	0.03% 0.04%	1
4	2336.537 0.0038080333	22.03% 5.28%	97.91 104.93	24.04 31.06	all are slightly sharp	0.24% 0.26%	0.04% 0.04%	1
5	2920.667 0.0006244777	3.61%	101.77	27.90		0.24%	0.04%	5
7	4087.770 0.0002985227	2.34% 1.73%	109.91 107.59	36.04 33.72		0.24% 0.21%	0.04% 0.03%	1 11
10	5838.623 0.000241695	1.40% 1.18%	113.76 111.95	39.90 38.09		0.19% 0.28%	0.03% 0.04%	5
11		0.44%	114.62	40.76	INHARMONIC	-4.27%	-0.65%	6
und 41 NHN	Break – Legato – Eb Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
2		100.00% 30.24%	74.88 86.91	0.00 12.02	very little diversion	0.00% 0.14%	0.00% 0.03%	2
3		27.38% 4.66%	93.92 98.89	19.04 24.01	across harmonic partials, all are slightly sharp	0.11% 0.07%	0.02% 0.01%	9. 2.
	3711.587 0.000874232	2.36%	105.92	31.04		0.10%	0.02%	9.

Note	5 3094.073 0.0006975787 8 4949.463 0.0004317207 10 6189.987 0.0003365493 7 4333.833 0.0002647107 12 7425.793 0.000142329	1.88% 102.77 1.17% 110.90 0.91% 114.77 0.71% 108.60 0.38% 117.92	27.89 36.02 39.89 33.72 43.04		0.13% 0.11% 0.16% 0.18% 0.13%	0.02% 6. 0.02% 2. 0.02% 6. 0.03% 0. 0.02% 9.
Projectory Ampaired Amp Ratio Pich (Mary) Mileral from Encionential Notes Diversion (Pich) Pich (Mary) Pich (Mar	NHN Frequency Amplitude 1 6553-6020 0.0007884367 2 1310.317 0.01400921 3 1966.347 0.00592397 4 2620.660 0.00211152 5 3275.003 0.00072328 6 3932.733 0.000624699 7 4588.367 0.000306148 10 6553.660 0.000291318 3 2286.020 0.00158832	100.00% 75.91 34.35% 87.89 14.53% 94.92 5.18% 99.89 1.77% 103.75 1.53% 106.92 0.75% 109.59 0.71% 115.76 0.39% 97.53	0.00 11.98 19.01 23.98 27.84 31.01 33.68 39.85 21.61	yery little diversion across harmonic partials, all are slightly flat	0.00% -0.13% -0.08% -0.12% -0.15% -0.08% -0.08% -0.09% 16.16%	0.00% 3. -0.02% 3. -0.01% 10. -0.02% 3. -0.02% 7. -0.01% 10. -0.01% 1. -0.01% 7. 2.73% 1.
Notes	NHN Frequency Amplitude 1 698.371 0.0445228 2 1395.450 0.0274578 3 2092.097 0.0052888 4 2789.137 0.00499987 5 3485.410 0.000946323 7 4877.917 0.005197463 8 5576.977 0.003962637 9 6273.233 0.000363709 6 4187.747 0.0002427637	100.00% 77.00 61.67% 88.98 19.16% 95.99 11.23% 100.97 2.13% 104.83 1.17% 110.65 0.89% 112.97 0.82% 115.00 0.55% 108.01	0.00 11.98 18.99 23.97 27.83 33.65 35.97 38.01 31.01	very little diversion across harmonic partials, all are slightly flat Note negligible subharmonic (Cells L689, O689 & R689) similar was present in sounds 38 and 42 but not registered	0.00% -0.09% -0.14% -0.16% -0.18% -0.22% -0.18% -0.19% -0.06%	0.00% 5. -0.02% 5. -0.03% 12. -0.03% 5. -0.03% 8. -0.03% 2. -0.03% 5. -0.03% 7.
Note Prequency Amplitude Amp Ratio Pitch (MIDI#) Interval from Fundamental Note Diversion (Ptd.) Diversion (Ptd.) Pitch Class See 364 0.07378333 0.00% 76.79 0.00%	NHN Frequency Amplitude 1 1051.023 0.049885 2 2099.377 0.0207157 1 1547.523 0.01655737 4 4199.253 0.01658737 5 6298.860 0.001609737 5 5250.557 0.001163983 3 3158.233 0.0005540037 7 7350.080 0.000478904 3 2656.050 0.0003409277 8 8394.750 0.0002541217	100.00% 84.07 41.52% 96.05 3.32% 90.77 3.17% 108.05 2.33% 115.07 2.24% 111.92 1.11% 103.12 0.96% 117.75 0.68% 100.12 0.51% 120.05	0.00 11.98 6.70 23.98 31.00 27.85 19.05 33.67 16.05 35.97	INHARMONIC <u>yery little diversion</u> across harmonic partials, all are slightly flat	0.00% -0.13% 47.24% -0.12% -0.12% -0.09% -0.16% -0.10% -15.76% -0.16%	0.00% 00.02% 0. 7.97% 60.02% 70.01% 3. 0.03% 70.01% 92.88% 40.02% 0.
NHN	NHN Frequency Amplitude 1 689.864 0.0473736333 3 2073.107 0.0108267333 2 1379.293 0.00670418 5 3452.940 0.0012881133 4 2763.077 0.000763297 7 4834.360 0.000412378	100.00% 76.79 22.85% 95.83 14.15% 88.78 2.74% 104.67 1.61% 100.81 0.87% 110.49	0.00 19.05 11.99 27.88 24.02 33.71	Notes	0.00% 0.17% -0.03% 0.10% 0.13% 0.11%	0.00% 4. 0.03% 11. -0.01% 4. 0.02% 8. 0.02% 4. 0.02% 2.
NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Notes Diversion (Hz) Diversion (Pitch) Pitch Class 1 873.367 0.0655822 100.00% 80.87 0.00 8.9 2 1750.527 0.00822839 12.55% 92.91 12.04 2	NHN Frequency Amplitude 1 775.829 0.0363457667 2 1551.790 0.0130424 3 2331.177 0.0037316567 7 5434.623 0.000978821 5 3882.877 0.0008356043 9 6990.203 0.0005875087 4 3106.847 0.0004122397 1 1157.667 0.0003433927 6 4658.510 0.000246708 3 1941.067 0.000238743 13 10095.467 0.00011957977	100.00% 78.82 35.88% 90.82 10.27% 97.87 2.69% 112.52 2.30% 106.70 1.62% 116.88 1.13% 102.84 0.94% 85.75 0.68% 109.85 0.65% 94.70 0.54% 123.24	0.00 12.00 19.05 33.70 27.88 38.06 24.02 6.93 31.03 15.88	very little diversion across harmonic partials, all are slightly sharp INHARMONIC	0.00% 0.01% 0.16% 0.07% 0.10% 0.11% 0.11% 49.22% 0.08% -16.60% 0.10%	0.00% 6. 0.00% 6. 0.03% 1. 0.01% 4. 0.02% 10. 0.02% 6. 8.79% 1. 0.01% 13.21% 10. 0.01% 3.
Sound 48 Middle - Legato - Bb NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Notes Diversion (Hz) Diversion (Pitch) Pitch Class	Sound 47 Middle – Legato – A NHN Frequency 1 873.367 0.0655822 2 1750.527 0.00822839 3 2625.463 0.0034245133 5 4372.277 0.0016763967 7 6122.623 0.0013306 4 3499.073 0.0013731437 9 7871.093 0.0004290867 6 5247.590 0.0003487213 13 11367.267 0.0002804267	Amp Ratio 100.00% 80.87 12.55% 92.91 5.22% 99.92 2.56% 108.75 2.03% 114.58 10.65% 118.93 0.53% 111.91 0.43% 125.29	1nterval from Fundamental 0.00 12.04 19.05 27.88 33.71 24.03 38.06 31.04 44.43	<u>very little diversion</u> across harmonic partials,	Diversion (Hz) Dive 0.00% 0.22% 0.20% 0.12% 0.15% 0.16% 0.14% 0.14%	Prsion (Pitch) 0.00% 8. 0.04% 3. 0.02% 6. 0.02% 10. 0.02% 10. 0.02% 3. 0.02% 5.
3 2320.913 0.00047/4413 0.53% 97.79 15.89 INHARMONIC -16.55% -3.10% 1.8 3 2387.293 0.0003826817 0.49% 98.28 16.37 INHARMONIC -14.17% -2.62% 2.3	Sound 48 Middle – Legato – Bb NHN Frequency 20,784413667 1 927,102 0,0784413667 2 1857,743 0,0033745 3 2784,877 0,0039367267 4 4093,00 0,001307767 6 5571,770 0,0008023313 7 6498,760 0,0007019473 3 2320,913 0,0004174413	Amp Ratio 100.00% 81.90 8.13% 93.94 5.02% 100.94 2.35% 105.92 1.44% 109.79 1.102% 112.95	Interval from Fundamental 0.00 12.03 19.04 24.02 27.88 31.05	very little diversion across harmonic partials.	Diversion (Hz) Dive 0.00% 0.19% 0.13% 0.10% 0.12% 0.16%	ersion (Pitch) 0.00% 0.04% 0.02% 4.0.02% 0.02% 1.0.03%

				Appendix 1				
Sound 49	Middle - Legato - C							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)		
1 2	1042.810 0.0562136333 2081.983 0.0165899	100.00% 29.51%	83.94 95.91	0.00 11.97	very little diversion	0.00% -0.17%	0.00% -0.03%	11.9 11.9
3		6.89%	102.93	18.99	across harmonic partials,	-0.17%	-0.03%	6.9
5 4		1.92% 1.54%	111.77 107.92	27.83 23.98	all are slightly flat	-0.17% -0.12%	-0.03% -0.02%	3.8 11.9
6		1.44%	114.93	30.99		-0.14%	-0.02%	6.9
7 8		0.99% 0.61%	117.61 119.91	33.67 35.97		-0.12% -0.15%	-0.02% -0.02%	9.6 11.9
12 9		0.44% 0.42%	126.93 121.95	42.99 38.01		-0.18%	-0.03%	6.9 2.0
9	9371.550 0.0002545615	0.42%	121.95	36.01		-0.15%	-0.02%	2.0
Cound 50								
NHN	Top – Staccato – D Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)		
1 2	1174.523 0.0312875333 2353.563 0.0202865667	100.00% 64.84%	86.00 98.03	0.00 12.03		0.00% 0.19%	0.00% 0.03%	2.0 2.0
3	3531.157 0.0027191867	8.69%	105.05	19.06		0.22%	0.04%	9.1
1 2	1577.273 0.0011349973 1982.560 0.001008336	3.63% 3.22%	91.10 95.06	5.10 9.06	INHARMONIC INHARMONIC	34.29% -15.60%	5.94% -3.00%	7.1 11.1
2		1.51%	94.27	8.27	INHARMONIC	-19.38%	-3.81%	10.3
3 1		1.35% 1.27%	103.00 91.70	17.00 5.70	INHARMONIC INHARMONIC	-11.00% 39.01%	-1.92% 6.63%	7.0 7.7
2 2	2899.363 0.0003317107	1.06%	101.64	15.64	INHARMONIC	23.43%	3.72%	5.6
2	2702.660 0.0002827703 2226.163 0.0002277207	0.90% 0.73%	100.43 97.07	14.43 11.07	INHARMONIC INHARMONIC	15.05% -5.23%	2.48% -0.95%	4.4 1.1
1		0.71%	92.55	6.55	INHARMONIC	45.99%	7.62%	8.5
2 2	2833.180 0.000209406 2738.553 0.000206712	0.67% 0.66%	101.24 100.65	15.24 14.66	INHARMONIC INHARMONIC	20.61% 16.58%	3.31% 2.71%	5.2 4.7
3	3365.403 0.0001860037	0.59%	104.22	18.22	INHARMONIC	-4.49%	-0.76%	8.2
2 3	1815.650 0.0001824403 3025.517 0.000179161	0.58% 0.57%	93.54 102.38	7.54 16.38	INHARMONIC INHARMONIC	-22.71% -14.13%	-4.55% -2.51%	9.5 6.4
3	2964.910 0.0001569253	0.50%	102.03	16.03	INHARMONIC INHARMONIC	-15.85%	-2.85%	6.0
3		0.48% 0.44%	103.67 105.80	17.67 19.80	INHARMONIC	-7.51% 4.60%	-1.29% 0.74%	7.7 9.8
Sound 51	Top – Staccato – G							
NHN	Frequency Amplitude 1593.230 0.0679622	Amp Ratio 100.00%	Pitch (MIDI #) 91.28	Interval from Fundamental 0.00	Notes due to shortness of sample	Diversion (Hz) D	Oiversion (Pitch)	Pitch Class 7.3
2	3165.710 0.00445214	6.55%	103.16	11.89	all three readings were	-0.65%	-0.11%	7.3
3 4		1.56% 1.67%	110.22 115.19	18.94 23.91	identical. Only values with < 4 leading 0s were included	-0.45% -0.50%	-0.07% -0.07%	2.2 7.2
-	0.00110200	1.07 70	110.10	20.01	44 leading 05 Welle included	0.0070	0.07 70	1.2
Sound E2	Top – Staccato – C							
NHN 1	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)		Pitch Class 0.4
2	2144.210 0.1989353333 4291.893 0.0113462	100.00% 5.70%	96.42 108.43	0.00 12.01		0.00% 0.08%	0.00% 0.01%	0.4
1								
1	2859.470 0.00137051	0.69%	101.40	4.98 3.56	INHARMONIC	33.36%	5.17%	5.4
1 1	2859.470 0.00137051 2633.813 0.0012875133 2576.393 0.001016184	0.69% 0.65% 0.51%	101.40 99.98 99.60	4.98 3.56 3.18	INHARMONIC INHARMONIC INHARMONIC		5.17% 3.69% 3.30%	5.4 4.0 3.6
1	2633.813 0.0012875133	0.65%	99.98	3.56	INHARMONIC	33.36% 22.83%	3.69%	4.0
1 1 Sound 53	2633.813 0.0012875133 2576.393 0.001016184 Top - Legato - D	0.65% 0.51%	99.98 99.60	3.56 3.18	INHARMONIC INHARMONIC	33.36% 22.83% 20.16%	3.69% 3.30%	4.0 3.6
1	2633.813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude	0.65%	99.98 99.60 Pitch (MIDI #)	3.56 3.18 Interval from Fundamental	INHARMONIC	33.36% 22.83% 20.16%	3.69% 3.30%	4.0 3.6 Pitch Class
50und 53 NHN 1 2	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34%	99.98 99.60 Pitch (MIDI #) 85.92 97.91	3.56 3.18 Interval from Fundamental 0.00 11.99	INHARMONIC INHARMONIC Notes very little diversion	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01%	4.0 3.6 Pitch Class 1.9 1.9
Sound 53 NHN 1 2 3	2633.813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169.220 0.025926333 2336.780 0.0161638 3505.973 0.0024874467	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials.	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9
Sound 53 NHN 1 2 3 4 5	2633.813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169.220 0.0259296333 2336.780 0.0161638 3505.973 0.00224874467 4673.347 0.0022051433 5842.767 0.00028378223	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85	INHARMONIC INHARMONIC Notes very little diversion	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08% -0.08%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8
Sound 53 NHN 1 23 34	2633,813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169.220 0.0259296333 2336.780 0.00161838 3505.973 0.0024874467 4673,347 0.0022051433 5842.767 0.0008378223 7012.313 0.0007317847	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 2.82%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials.	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8
Sound 53 NHN 1 2 3 4 5 6 6 8 9	2633.813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169.220 0.0525296333 2336.780 0.0161638 3505.973 0.00224874467 4673.347 0.002025183 3542.767 0.000205178223 7012.313 0.0007317847 9348.723 0.0003658343 10513.553 0.0003384767	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 2.82% 1.41%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials.	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.06% -0.06% -0.04% -0.05% -0.05% -0.09%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8 8.9 1.9 3.9
Sound 53 NHN 1 2 3 4 5 6 8 8 9 7	Z633,813 D.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169,220 0.0259296333 2336,780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842,767 0.0008378223 7012,313 0.0007317847 9348,723 0.0003658343 10513,533 0.0003384767 8179,107 0.0002250813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 2.82% 1.41% 0.87%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials.	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08% -0.04% -0.05% -0.05% -0.05% -0.07%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8 8.9 1.9 3.9 11.6
Sound 53 NHN 1 2 3 4 5 6 6 8 9	Z633,813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169,220 0.0259296333 2336.780 0.00259296333 3505.973 0.00224874467 4673,347 0.002026133 5842.767 0.0008378223 7012.313 0.0007317847 9348,723 0.0003688343 10513.533 0.0003384767 8179.107 0.0002250813 12854.553 0.0002144977	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 2.82% 1.41%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials.	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.06% -0.06% -0.04% -0.05% -0.05% -0.09%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8 8.9 1.9 3.9
Sound 53 NHN 1 2 3 4 5 6 6 8 9 7 11	Z633,813 0.0012875133 2576.393 0.001016184 Top – Legato – D Frequency Amplitude 1169,220 0.0259296333 2336.780 0.0259296333 3505.973 0.0024874467 4673,347 0.002025133 5842.767 0.0008378223 7012.313 0.0007317847 9348,723 0.0003688343 10513.533 0.0000214977 8179.107 0.0002250813 12854.553 0.0002144977	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 2.82% 1.41% 1.31% 0.87% 0.83%	99,98 99,60 Pitch (MIDI #) 85,92 97,91 104,93 109,91 113,77 116,93 121,91 123,94 119,60 127,42	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08% -0.04% -0.05% -0.09% -0.09% -0.05%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 Sound 54	2633,813	0.65% 0.51% 0.51% Amp Ratio 100.00% 62.34% 9.59% 3.23% 2.82% 1.41% 1.31% 0.83% 0.66%	99,98 99,60 Pitch (MIDI #) 85,92 97,91 104,93 109,91 113,77 116,93 121,91 123,94 119,60 127,42 95,59	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.05% -0.08% -0.06% -0.04% -0.05% -0.09% -0.09% -0.09% -12.57%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -2.37%	4.0 3.6 Pitch Class 1.9 8.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1	2633,813	0.65% 0.51% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 2.82% 1.41% 0.83% 0.66%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67	INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -12.57%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.2.37%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 3 4 5 6 6 8 9 7 11 2 2 5 5 5 5 6 8 8 9 9 7 11 2 2 5 6 6 8 9 9 7 11 2 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2633,813	0.65% 0.51% 0.51% Amp Ratio 100.00% 62.34% 9.59% 3.23% 2.82% 1.41% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.06% -0.05% -0.09% -0.05% -12.57%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4	2633,813	0.65% 0.51% 0.51% 100.00% 62.34% 9.59% 2.82% 1.41% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99	INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08% -0.05% -0.05% -0.05% -12.57%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 8.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 Sound 54 NHN 1 2 2 3 4 5 6 8 9 7 11 2 2 8 5 6 8 9 7 11 2 2 8 7 1 1 2 2 8 7 1 1 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169.220 0.0259266333 2336.780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842.767 0.0008378223 7012.313 0.0007317847 9348.723 0.0003568343 10513.533 0.000348767 8179.107 0.0002250813 12854.533 0.0002144977 2044.560 0.000172024 Top - Legato - E Frequency Amplitude 1326.770 0.0882826 1326.770 0.0882826 3978.777 0.00354337 5303.503 0.002756733 5303.503 0.002756733 5303.503 0.002756733	0.65% 0.51% 0.51% 100.00% 62.34% 9.59% 8.50% 3.23% 0.83% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials,	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.06% -0.04% -0.05% -0.07% -0.05% -0.07% -0.05% -0.00% -0.00% -0.00% -0.00%	3.69% 3.30% iversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 4 5 6 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 8 8 9 7 1 1 2 5 6 8 8 9 7 1 1 2 1 3 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 6 8 9 7 1 1 1 2 1 5 7 8 7 8 8 9 8 9 7 1 1 1 2 1 8 9 8 9 8 9 7 1 1 1 2 1 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169.220 0.0259266333 2336.780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842.767 0.0008378223 7012.313 0.0007317847 9348.723 0.0003568343 10513.533 0.000348767 8179.107 0.0002250813 12854.533 0.0002144977 2044.560 0.000172024 Top - Legato - E Frequency Amplitude 1326.770 0.0882826 1326.770 0.0882826 3978.777 0.00354337 5303.503 0.002756733 5303.503 0.002756733 5303.503 0.002756733	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 3.06%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials,	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.08% -0.06% -0.07% -0.05% -12.57% Diversion (Hz) C 0.00% -0.07% -0.00% -0.07% -0.00% -0.07% -0.07% -0.07% -0.07% -0.07%	3.69% 3.30% 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 3.06%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials,	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.08% -0.06% -0.07% -0.05% -12.57% Diversion (Hz) C 0.00% -0.07% -0.00% -0.07% -0.00% -0.07% -0.07% -0.07% -0.07% -0.07%	3.69% 3.30% 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 3.9 11.6 7.4 11.6
Sound 53 NHN 1 2 3 4 5 6 8 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 Sound 55 NHN	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials,	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.06% -0.04% -0.05% -12.57% Diversion (Hz) E 0.00% -0.00%	3.69% 3.30% 3.30% Diversion (Pitch) 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 8.9 1.9 5.8 8.9 1.9 1.6 7.4 11.6 Pitch Class 4.1 4.1 4.1 4.1 8.0 11.1
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 Sound 54 NHN 1 2 3 4 4 5 6 6 Sound 55 NHN 1 2 1 2 3 4 4 5 6 6	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.87% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 119.12	3.56 3.18	INHARMONIC INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat Notes	33.36% 22.83% 20.16% Diversion (H2) E 0.00% -0.07% -0.05% -0.08% -0.06% -0.07% -0.05% -12.57% Diversion (H2) E 0.00% -0.07% -0.06%	3.69% 3.30% 3.30% 0.00% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 1.6 7.4 11.6 Pitch Class 4.1 4.1 4.1 4.1 8.0 11.1
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 Sound 55 NHN 1 2 4	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 115.96 119.12	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.01 24.02	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.05% -0.05% -0.05% -0.07% -0.05% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6 Pitch Class 4.1 4.1 8.0 11.1
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 Sound 54 NHN 1 2 3 4 5 6 6 8 9 7 11 2 2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169,220 0.0259296333 2336,780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842,767 0.002251433 5842,767 0.002250813 1251,353 0.0003384767 8179,107 0.0002250813 12854,553 0.0002144977 2044,560 0.000172024 Top - Legato - E Frequency Amplitude 1326,770 0.00384337 5303,503 0.002706733 5404,000 0.005042563	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.83% 0.66% Amp Ratio 100.00% 21.79% 0.70% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 3.40% 3.40%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.99 27.85 31.01	INHARMONIC INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat Notes	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.08% -0.04% -0.05% -1.2.57% Diversion (Hz) E 0.00% -0.07% -0.06% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06%	3.69% 3.30% 3.30% biversion (Pitch) 0.00% -0.01% -0.00% -0.01% -0.00%	Pitch Class 1.9 1.9 1.9 1.9 5.8 8.9 1.9 1.6 7.4 11.6 Pitch Class 4.1 4.1 4.1 5.1 5.1 0.1
Sound 53 NHN 1 2 3 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 Sound 55 NHN 1 2 4 3	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 1.77% 1.14%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12 Pitch (MIDI #) 89.05 101.06 113.07 108.09 120.09 120.09 120.09	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.01 24.02 19.04 31.04 36.02	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.08% -0.04% -0.05% -0.09% -0.07% -0.05% -12.57% Diversion (Hz) D 0.00% -0.07% -0.06% Diversion (Hz) D 0.00% -0.07% -0.06% -0.07% -0.06%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6 Pitch Class 4.1 4.1 11.1 11.1 11.1 5.1 5.1 0.1 0.1
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 Sound 55 NHN 1 2 4 3 3 6 6 8 7 7	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169,220 0.0259296333 2336,780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842,767 0.0008378223 7012,313 0.0007317847 9348,723 0.0003658343 10513,533 0.0003384767 8179,107 0.0002250813 12854,533 0.0002144977 2044,560 0.000172024 Top - Legato - E Frequency Amplitude 1326,770 0.0882826 22651,677 0.0192357667 3978,777 0.00354337 5303,503 0.0027056733 6628,917 0.000618968 7955,630 0.0005042563 Top - Legato - F Frequency Amplitude 1401,187 0.0758524 2804,140 0.0180111333 5611,743 0.0038697167 4209,040 0.0025766967 8416,097 0.00134212 11223,567 0.000867057 9817,053 0.0008627753 12624,833 0.0005881767	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.83% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 1.77% 1.14% 0.82%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.01 24.02 19.04 31.04 36.02 33.70 38.06	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.06% -0.04% -0.05% -0.07% -0.05% -0.06% -0.06% -0.06% -0.06% -0.00% -0.07% -0.06% -0.06% -0.07% -0.06% -0.07% -0.00% -0.07% -0.00%	3.69% 3.30% 3.30% 0.00% -0.01% -0.02%	4.0 3.6 Pitch Class 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6 Pitch Class 4.1 4.1 11.1 11.1 11.1 2.1 2.8 7.1
Sound 53 NHN 1 2 3 4 5 6 8 8 9 7 11 2 Sound 54 NHN 1 2 3 4 4 5 6 Sound 55 NHN 1 2 3 4 4 6 6	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169,220 0.0259296333 2336,780 0.0161638 3505.973 0.0024874467 4673,347 0.0022051433 5842,767 0.0008378223 7012,313 0.0007317847 9348,723 0.0003658343 10513,533 0.0003384767 8179,107 0.0002250813 12854,533 0.0002144977 2044,560 0.000172024 Top - Legato - E Frequency Amplitude 1326,770 0.0882826 22651,677 0.0192357667 3978,777 0.00354337 5303,503 0.0027056733 6628,917 0.000618968 7955,630 0.0005042563 Top - Legato - F Frequency Amplitude 1401,187 0.0758524 2804,140 0.0180111333 5611,743 0.0038697167 4209,040 0.0025766967 8416,097 0.00134212 11223,567 0.000867057 9817,053 0.0008627753 12624,833 0.0005881767	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.87% 0.87% 0.87% 0.87% 0.87% 0.56% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 1.77% 1.14% 0.82%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 119.12	Interval from Fundamental	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (H2) C 0.00% -0.05% -0.08% -0.05% -0.09% -0.07% -0.05% -12.57% Diversion (H2) C 0.00% -0.07% -0.06% -12.57%	3.69% 3.30% 3.30% Diversion (Pitch) 0.00% -0.01% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.01%	Pitch Class 1.9 1.9 1.9 1.9 5.8 8.9 1.9 1.6 7.4 11.6 Pitch Class 4.1 4.1 4.1 4.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5.1 5
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 3 4 4 5 6 6 8 9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169.220 0.0259296333 2336.780 0.0161638 3505.973 0.0024874467 4673.347 0.0022051433 5842.767 0.008378223 7012.313 0.0007317847 9348.723 0.0003658343 10513.533 0.00034834767 8179.107 0.0002250813 12854.533 0.0002144977 2044.560 0.000172024 Top - Legato - E Frequency Amplitude 1326.770 0.0882826 2651.677 0.0192357667 3978.777 0.00384337 5303.503 0.0027056733 56028.917 0.000618968 7955.630 0.0005042563 Top - Legato - F Frequency Amplitude 1401.187 0.00384337 5303.503 0.0005042563	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.83% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 1.77% 1.14% 0.82%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12	3.56 3.18 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.01 24.02 19.04 31.04 36.02 33.70 38.06	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) E 0.00% -0.07% -0.05% -0.06% -0.04% -0.05% -0.07% -0.05% -0.06% -0.06% -0.06% -0.06% -0.00% -0.07% -0.06% -0.06% -0.07% -0.06% -0.07% -0.00% -0.07% -0.00%	3.69% 3.30% 3.30% 0.00% -0.01% -0.02%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6 Pitch Class 4.1 4.1 8.0 11.1 Pitch Class 5.1 5.1 0.1 5.1 2.8 7.1
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 Sound 54 NHN 1 2 3 4 4 5 6 6 Sound 55 NHN 1 2 4 3 6 8 8 9 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2633,813	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.87% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.77% 5.10% 3.40% 1.17% 0.17% 0.17% 0.17% 0.11%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12 Pitch (MIDI #) 89.05 101.06 113.07 108.09 122.76 127.11 116.93	Interval from Fundamental	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion partials, all are slightly flat	33.36% 22.83% 20.16% Diversion (Hz) D 0.00% -0.07% -0.05% -0.06% -0.05% -0.09% -0.07% -0.05% -12.57% Diversion (Hz) D 0.00% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06%	3.69% 3.30% biversion (Pitch) 0.00% -0.01%	4.0 3.6 Pitch Class 1.9 1.9 1.9 5.8 8.9 1.9 3.9 11.6 7.4 11.6 Pitch Class 4.1 4.1 4.1 8.0 11.1 Pitch Class 5.1 5.1 0.1 0.1 0.1 8.9
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 Sound 55 NHN 1 2 4 3 3 6 8 7 7 5 Sound 55 NHN 1 2 4 5 5 Sound 55 NHN 1 2 1 3 3 6 8 7 9 5 5	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169,220 0.025926333 2336.780 0.0161638 3505.973 0.0024874467 37012.313 0.0007317847 9348.723 0.0003658343 10513.533 0.0003184737 2044.560 0.000172024 Top - Legato - E Frequency Amplitude 1326.770 0.0082826 2651.677 0.0192357667 3978.777 0.00354337 5303.503 0.0027056733 6228.917 0.000618968 7955.630 0.0005042563 Top - Legato - F Frequency Amplitude 1401.187 0.0758524 2804.140 0.0180111333 5611.743 0.0038697167 4209.040 0.0025768967 9817.053 0.0006227753 12624.833 0.0005827575 12624.833 0.0005827757 12624.833 0.0005827757 12624.833 0.0005827757 12624.833 0.0005827757 12624.833 0.0005827757 12624.833 0.0005827757 7013.127 0.0003143147	0.65% 0.511% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.83% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 0.70% 1.141% 0.82% 0.78% 0.41%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12 Pitch (MIDI #) 89.05 101.06 113.07 108.09 122.76 127.11 116.93	Interval from Fundamental	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion	33.36% 22.83% 20.16% Diversion (H2) C 0.00% -0.07% -0.05% -0.08% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.12.57% Diversion (H2) C 0.00% -0.07% -0.06% Diversion (H2) C 0.00% -0.07% -0.13% -0.06% 0.11% 0.13% 0.09% 0.11% 0.10%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.00% -0.00%	## A
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 2 3 4 4 5 6 6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2633,813 0.0012875133 2576.393 0.001016184 Top - Legato - D Frequency Amplitude 1169,220 0.0259296333 2336,780 0.0161638 3505,973 0.0024874467 4673,347 0.0022051433 5842,767 0.008376223 7012,313 0.0007317847 9348,723 0.0003658343 10513,533 0.000348767 8179,107 0.0002250813 12854,533 0.0002144977 2044,560 0.000172024 Top - Legato - E Frequency Amplitude 1326,770 0.0828266 2651,677 0.000618968 7955,630 0.0027056733 5030,503 0.0027056733 5030,503 0.0027056733 5030,503 0.0027056733 5030,503 0.0027056733 503,503 0.0027056733 5031,503 0.0005042563	0.65% 0.51% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 1.41% 0.87% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 6.141% 0.82% 0.78% 0.41% 0.78% 0.41%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 119.12 Pitch (MIDI #) 89.15 101.06 113.07 122.07 122.76 127.11 116.93	Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 35.99 38.02 33.68 41.50 9.67 Interval from Fundamental 0.00 11.99 19.01 23.99 27.85 31.01 Interval from Fundamental 0.00 12.01 24.02 19.04 31.04 36.02 33.70 38.06 27.88 Interval from Fundamental 0.00 12.01 24.02 19.04 31.04 36.02 33.70 38.06 27.88 Interval from Fundamental 0.00 24.00	INHARMONIC INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes very little diversion across harmonic partials, all are slightly flat Notes very little diversion across harmonic partials, all are slightly sharp Notes	33.36% 22.83% 20.16% Diversion (Hz) C 0.00% -0.07% -0.05% -0.06% -0.07% -0.05% -12.57% Diversion (Hz) C 0.00% -0.07% -0.06% -12.57% Diversion (Hz) C 0.00% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.07% -0.06% -0.00%	3.69% 3.30% 3.30% 3.30% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.01% 0.00% 0.01% 0.01% 0.01% 0.00% 0.01% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	## A.0 3.6 Pitch Class
Sound 53 NHN 1 2 3 4 5 6 8 9 7 11 2 Sound 54 NHN 1 2 3 4 5 6 6 Sound 55 NHN 1 2 4 3 3 6 8 7 7 5 Sound 55 NHN 1 2 4 5 5 Sound 55 NHN 1 2 1 3 3 6 8 7 9 5 5	2633,813 0.0012875133 2576.393 0.001016184 Top − Legato − D Frequency Amplitude 1169,220 0.025926333 2336,780 0.0161638 3505,973 0.0024874467 4673,347 0.0022051433 5842,767 0.0008378223 7012,313 0.0007317847 9348,723 0.0003658343 10513,533 0.0003384767 8179,107 0.0002250813 12854,533 0.0002144977 2044,560 0.000172024 Top − Legato − E Frequency Amplitude 1326,770 0.0082826 2651,677 0.0192357667 2651,677 0.0002576533 6628,917 0.000618968 7955,630 0.0005042563 Top − Legato − F Frequency Amplitude 1401,187 0.0035437 503,503 0.002756633 6628,917 0.000618968 7955,630 0.0005042563 Top − Legato − F Frequency Amplitude 1401,187 0.0058524 2204,140 0.0025766967 8416,097 0.00134212 11223,567 0.000867057 9817,053 0.000627753 12624,833 0.0005881767 7013,127 0.0003143147	0.65% 0.511% Amp Ratio 100.00% 62.34% 9.59% 8.50% 3.23% 0.83% 0.83% 0.66% Amp Ratio 100.00% 21.79% 4.01% 3.06% 0.70% 0.57% Amp Ratio 100.00% 23.74% 5.10% 3.40% 0.70% 1.141% 0.82% 0.78% 0.41%	99.98 99.60 Pitch (MIDI #) 85.92 97.91 104.93 109.91 113.77 116.93 121.91 123.94 119.60 127.42 95.59 Pitch (MIDI #) 88.11 100.10 107.12 112.10 115.96 119.12 Pitch (MIDI #) 89.05 101.06 113.07 108.09 122.76 127.11 116.93	Interval from Fundamental	INHARMONIC INHARMONIC INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat INHARMONIC Notes Very little diversion across harmonic partials, all are slightly flat Notes Very little diversion across harmonic partials, all are slightly sharp Notes Very little diversion	33.36% 22.83% 20.16% Diversion (H2) C 0.00% -0.07% -0.05% -0.08% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.12.57% Diversion (H2) C 0.00% -0.07% -0.06% Diversion (H2) C 0.00% -0.07% -0.13% -0.06% 0.11% 0.13% 0.09% 0.11% 0.10%	3.69% 3.30% Diversion (Pitch) 0.00% -0.01% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.00% -0.00%	## A

Sound 57	Top - Legato - A							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	
1	1764.447 0.1263266333	100.00%	93.04	0.00		0.00%		9.0
2	3527.103 0.0101706567	8.05%	105.03	11.99	very little diversion	-0.05%		9.0
4	7052.397 0.0041142267	3.26%	117.03	23.99	across harmonic partials,	-0.08%		9.0
3		1.54%	112.05	19.01	all are slightly flat	-0.05%		4.1
6	10581.833 0.00089	0.70%	124.06	31.01		-0.05%	-0.01%	4.1
0								
Sound 58 NHN	Top – Legato – B	A D - 41 -	D:4-1- (MIDI #)	Internal from Francisco	Netes	Discouries (U=)	Diversion (Ditely)	Dia-la Ol
NHN	Frequency Amplitude 1980.210 0.153702	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental 0.00	Notes	0.00%	Diversion (Pitch)	
1	1980.210 0.153702 3960.340 0.0122783667	100.00% 7.99%	95.04 107.04	12.00	very little diversion	0.00%		11.0 11.0
3								
3		5.16%	114.06	19.01	across harmonic partials,	-0.03%		6.1
6	7915.293 0.00485975 11873.567 0.0029199	3.16% 1.90%	119.03 126.05	23.99 31.01	all are slightly flat	-0.07% -0.06%		11.0 6.0
		1.90%	126.05	27.85		-0.06%		
5 2	3013.550 0.0004860273	0.32%	102.31	27.85 7.27	INHARMONIC	-0.05% -23.91%		2.9 6.3
	3013.550 0.0004660273	0.32%	102.31	1.21	INHARMONIC	-23.9170	-4.42%	0.3
Sound 59	Top - Legato - C							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	2131.883 0.1590696667	100.00%	96.32	0.00		0.00%		0.3
2	4265,740 0.0146266667	9.20%	108.33	12.01	some noise in 1-2KHz range	0.05%		0.3
3	6395,650 0.00543226	3.42%	115.34	19.02		0.00%	0.00%	7.3
5	10659.800 0.0011547647	0.73%	124.18	27.86	very little diversion	0.00%		4.2
4	8527.867 0.0011450563	0.72%	120.32	24.00	across harmonic partials	0.00%		0.3
6	12791.267 0.0009086747	0.57%	127.34	31.02		0.00%		7.3
1	3143.547 0.0007311897	0.46%	103.04	6.72	INHARMONIC	47.45%		7.0
1	3105.923 0.0006491907	0.41%	102.83	6.51	INHARMONIC	45.69%	6.76%	6.8

				Appendix 2			
Sound 1	Chalumeau – mf – low						
NHN 1	Frequency Amplitude 205.351 0.00158453	Amp Ratio 100.00%	Pitch (MIDI #) 55.81	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diversion 0.00%	sion (Pitch) Pitch Class
3	617.883 0.000628541	39.67%	74.88	19.07		0.30%	0.00% 7.8 0.07% 2.9
7	1442.967 0.000505009	31.87%	89.56	33.75		0.38%	0.07% 5.6
5 8	1032.150 0.000340371 1648.327 0.000206102	21.48% 13.01%	83.76 91.87	27.95 36.06		0.53% 0.34%	0.11% 11.8 0.06% 7.9
6	1237.547 7.4786E-005	4.72%	86.90	31.10		0.44%	0.09% 2.9
4 9	826.767 7.3348E-005 1853.483 5.5822E-005	4.63% 3.52%	79.92 93.90	24.11 38.09		0.65% 0.29%	0.14% 7.9 0.05% 9.9
11	2265.887 4.1499E-005	2.62%	97.37	41.57		0.31%	0.06% 1.4
10	2060.860 3.7552E-005	2.37%	95.73	39.93		0.36%	0.06% 11.7
2 8	410.738 1.9537E-005 1553.023 9.1663E-006	1.23% 0.58%	67.81 90.83	12.00 35.03	INHARMONIC	0.01% -5.47%	0.00% 7.8 -1.06% 6.8
7	1342.110 6.5803E-006	0.42%	88.31	32.50	INHARMONIC	-6.63%	-1.33% 4.3
Sound 2	Chalumeau – mf – high Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diversion	sion (Pitch) Pitch Class
1	259.565 0.001035853	100.00%	59.86	0.00	140(65	0.00%	0.00% 11.9
3 5	782.255 0.000521804 1303.107 0.000212774	50.37% 20.54%	78.96 87.80	19.10 27.93		0.46% 0.41%	0.10% 7.0 0.08% 3.8
4	1043.600 0.000087289	8.43%	83.95	24.09		0.51%	0.11% 12.0
6 2	1564.513 7.2202E-005 520.893 0.000059609	6.97% 5.75%	90.96 71.92	31.10 12.06		0.46% 0.34%	0.09% 7.0 0.08% 11.9
9	2346.443 0.000018781	1.81%	97.98	38.12		0.44%	0.08% 2.0
8	2085.250 1.7298E-005	1.67%	95.94	36.07		0.42%	0.08% 11.9
11 10	2869.817 1.4806E-005 2608.343 1.4376E-005	1.43% 1.39%	101.46 99.81	41.60 39.95		0.51% 0.49%	0.09% 5.5 0.08% 3.8
7 10	1826.187 8.7337E-006 2538.270 4.8442E-006	0.84%	93.64 99.34	33.78 39.48	INHARMONIC	0.51% -2.21%	0.09% 9.6 -0.39% 3.3
10	2536.270 4.8442E-000	0.47%	99.34	35.40	INHARMONIC	-2.21/0	-0.3970 3.3
Sound 3	Chalumeau – pp – low						
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		sion (Pitch) Pitch Class
1 3	206.275 0.000523221 624.182 3.1173E-005	100.00% 5.96%	55.88 75.05	0.00 19.17		0.00% 0.87%	0.00% 7.9 0.20% 3.1
5	1032.897 0.000006448	1.23%	83.77	27.89		0.15%	0.03% 11.8
7 9	1441.983 4.6588E-006 1866.393 4.4898E-006	0.89% 0.86%	89.55 94.02	33.66 38.13		-0.13% 0.53%	-0.03% 5.5 0.10% 10.0
11	2296.500 2.8254E-006	0.54%	97.61	41.72		1.21%	0.21% 1.6
2 2	348.897 2.7699E-006 418.073 2.3273E-006	0.53% 0.44%	64.98 68.12	9.10 12.23	INHARMONIC	-15.43% 1.34%	-4.27% 5.0 0.34% 8.1
	410.070 2.02702-000	0.4470	00.12	12.23		1.54 /0	0.0470
Sound 4	Chalumeau – pp – high						
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes		sion (Pitch) Pitch Class
1 3	264.953 0.000563426 793.032 7.3472E-005	100.00% 13.04%	60.22 79.20	0.00 18.98		0.00% -0.23%	0.00% 0.2 -0.05% 7.2
2	528.171 1.9384E-005	3.44%	72.16	11.94		-0.33%	-0.08% 0.2
10	2640.650 7.1247E-006	1.26%	100.02	39.81		-0.34%	-0.06% 4.0
5 11	1327.603 6.3708E-006 2900.213 5.7527E-006	1.13% 1.02%	88.12 101.65	27.90 41.43		0.21% -0.49%	0.04% 4.1 -0.08% 5.6
4	1057.947 4.7661E-006	0.85%	84.19	23.97		-0.18%	-0.04% 0.2
11 9	2835.960 0.000003758 2378.090 3.5136E-006	0.67% 0.62%	101.26 98.21	41.04 37.99	INHARMONIC	-2.69% -0.27%	-0.46% 5.3 -0.05% 2.2
8	1998.433 0.000003045	0.54%	95.20	34.98	INHARMONIC	-5.72%	-1.06% 11.2
1 10	346.918 2.9136E-006 2694.847 2.7298E-006	0.52% 0.48%	64.89 100.38	4.67 40.16	INHARMONIC INHARMONIC	30.94% 1.71%	7.75% 4.9 0.29% 4.4
Sound 5	Chalumeau – ff – low Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitch Class
1	205.025 0.00297901	100.00%	55.78	0.00	140163	0.00%	0.00% 7.8
7 3	1438.747 0.00142603 615.110 0.00130008	47.87% 43.64%	89.51 74.80	33.73 19.02			
9	1850.640 0.00128339	43.08%				0.25%	0.05% 5.5
5 13	1026.943 0.001228533		93.87	38.09		0.01% 0.29%	0.00% 2.8 0.05% 9.9
17		41.24%	83.67	38.09 27.89		0.01% 0.29% 0.18%	0.00% 2.8 0.05% 9.9 0.04% 11.7
	2670.763 0.000929167 3492.690 0.000796817			38.09		0.01% 0.29%	0.00% 2.8 0.05% 9.9
15	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605	41.24% 31.19% 26.75% 22.18%	83.67 100.22 104.87 102.70	38.09 27.89 44.44 49.09 46.92		0.01% 0.29% 0.18% 0.20% 0.21% 0.24%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7
11	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968	41.24% 31.19% 26.75% 22.18% 20.84%	83.67 100.22 104.87 102.70 97.33	38.09 27.89 44.44 49.09 46.92 41.55		0.01% 0.29% 0.18% 0.20% 0.21%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9
11 20 14	2670.763 0.000929167 3492.690 0.000796817 3082.692 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82%	83.67 100.22 104.87 102.70 97.33 107.68 101.51	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5
11 20 14 16	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22%	0.00% 9.9 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 11.3 0.04% 5.5 0.04% 7.8
11 20 14 16 18	2670.763 0.00922167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000474410 3287.610 0.000434497 3697.790 0.000411709 3902.860 0.000386342	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75% 13.82% 12.97%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.25% 0.22% 0.19%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.04% 7.8 0.03% 9.9 0.03% 10.8
11 20 14 16 18 19 8	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000362931	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.20% 0.19% 0.34%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 13. 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8
11 20 14 16 18 19 8 12 21	2670.763 0.00922167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.0004744107 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000276603 4316.527 0.000257844	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75% 13.82% 12.97%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.25% 0.22% 0.19%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.04% 7.8 0.03% 9.9 0.03% 10.8
11 20 14 16 18 19 8 12 21	2670,763 0.000929167 3492.690 0.000796817 3082.622 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.873 0.000362931 2465.727 0.000276603 4316.527 0.000232209	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66% 7.79%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.25% 0.22% 0.36% 0.19% 0.34% 0.22% 0.26%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 5.5 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 0.5 0.04% 1.3
11 20 14 16 18 19 8 12 21 10 22	2670,763 0.000929167 3492,690 0.000796817 3082,620 0.000660605 2260,683 0.000620968 4109,547 0.000474410 3287,610 0.000439497 3697,790 0.000411709 3902,860 0.000386342 1645,813 0.000362931 2465,727 0.000276603 4316,527 0.000257844 2055,820 0.000232209 4521,430 0.000180676	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.22%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.06% 7.8
11 20 14 16 18 19 8 12 21 10 22 24 23	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.00043979 3997.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000275803 4316.527 0.000257844 2055.820 0.000232209 4521.430 0.000180676 4393.237 0.000161119 4728.227 0.000118293	41.24% 26.75% 22.18% 20.84% 16.06% 14.82% 12.97% 12.18% 9.29% 8.66% 7.79% 6.06% 5.41%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.76 39.91 53.55 55.06 54.33		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.25% 0.20% 0.19% 0.34% 0.22% 0.26% 0.22% 0.26% 0.27% 0.26% 0.27% 0.24% 0.26% 0.27%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 1.3 0.04% 1.3 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 0.5 0.05% 11.7 0.04% 2.8 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.04% 2.0 0.0
11 20 14 16 18 19 8 12 21 10 22 24 23 26	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.00041709 3902.860 0.000386342 1645.813 0.00362931 2465.727 0.000257844 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000161119 4728.227 0.000118293 5543.453 0.000115324	41.24% 31.19% 26.75% 22.18% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66% 7.79% 5.41% 3.97% 3.87%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.22% 0.20% 0.19% 0.34% 0.26% 0.27% 0.26% 0.27% 0.26%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 13. 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.06% 7.8 0.06% 0.5 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8
11 20 14 16 18 19 8 12 21 10 22 24 23 26 27 25	2670,763 0.00929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.00386342 1645.813 0.000362931 2465.727 0.0002578644 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000161119 4728.2277 0.000118293 5343.453 0.000115324 548.487 0.000097429 5138.477 6.6152E-005	41.24% 31.19% 26.75% 22.18% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66% 5.41% 3.97% 3.87% 3.27%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.04% 7.8 0.03% 10.8 0.03% 10.8 0.06% 7.8 0.06% 7.8 0.04% 0.5 0.05% 11.7 0.04% 1.3 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 3.5
11 20 14 16 18 19 8 12 21 10 22 24 23 26 27 25 6	2670.763 0.00922167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.00041709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000276603 4316.527 0.000276603 4316.527 0.000257844 2055.820 0.000232209 4521.430 0.0001808676 4933.237 0.0001161119 4728.227 0.000118293 5543.453 0.000017524 5548.487 0.000097429 5138.477 6.6152E-005 1231.890 6.5067E-005	41.24% 31.19% 26.75% 22.18% 10.66% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 6.66% 7.79% 6.06% 5.41% 3.97% 3.27% 2.22% 2.18%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.25%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 9.9 0.04% 1.3 0.04% 1.4 0.03% 9.9 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 2.5 0.05% 11.7 0.04% 2.8 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.2 0.04% 4.9 0.04% 3.5 0.03% 2.8
111 200 144 166 18 19 8 12 21 100 22 24 23 26 27 25 6	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.00036233 2465.727 0.000276603 4316.527 0.000257844 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000116119 4728.227 0.000118293 5343.453 0.000118293 5343.453 0.000115324 5548.487 0.00097422 5138.477 6.6152E-005 1231.890 6.5067E-005 5958.557 0.00006449 5753.607 4.0810E-005	41.24% 31.19% 26.75% 22.18% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66% 7.79% 3.97% 3.87% 3.87% 3.87% 3.87% 3.87% 3.87%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 111.55 86.82 114.11 113.51	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.25%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.03% 10.8 0.06% 7.8 0.06% 7.8 0.04% 0.5 0.04% 2.8 0.04% 2.1 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 3.5 0.05% 4.2 0.04% 4.2 0.04% 4.2 0.04% 4.2 0.04% 4.2 0.04% 5.5
11 20 14 16 18 19 8 12 21 10 22 24 23 26 27 25 6	2670,763 0.00922167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000447847 3897.790 0.0004411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000276603 4316.527 0.00027844 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.00018119 4728.227 0.000118293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293 5543.453 0.000115293	41.24% 26.75% 22.18% 20.84% 16.06% 14.82% 12.97% 12.18% 9.29% 8.66% 7.79% 6.06% 5.41% 3.97% 3.27% 2.22% 2.22% 1.89%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82 114.11	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.76 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.25% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.25%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 5.5 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 0.5 0.04% 0.5 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 3.5 0.04% 4.2 0.04% 4.2 0.04% 3.5 0.04% 3.5 0.03% 6.1
111 200 144 116 118 119 8 12 21 110 22 24 23 26 27 25 6 6 29 28	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000474410 3287.610 0.000434407 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000276603 4316.527 0.000257844 2055.820 0.000232200 4521.430 0.0001802676 4933.237 0.000118194 4728.227 0.000118292 5543.445 0.000195242 5548.487 0.000195242 5548.487 0.000097429 5133.890 6.5067E-005 5958.557 0.00056449 5753.607 4.0810E-005 821.719 2.4822E-005	41.24% 26.75% 22.18% 16.06% 14.82% 12.97% 12.18% 9.29% 6.06% 7.79% 6.06% 5.41% 3.97% 3.97% 2.22% 2.18% 1.89% 1.37%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 111.11 112.23 112.88 111.55 86.82 114.11 113.51 79.81	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03		0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.25% 0.22% 0.36% 0.22% 0.34% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.25% 0.14% 0.25% 0.14% 0.25% 0.14% 0.22% 0.25% 0.21% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.25% 0.14% 0.22% 0.22% 0.22%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 0.5 0.04% 1.3 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 3.5 0.04% 2.1 0.04% 3.5 0.03% 6.1 0.03% 5.5
111 200 144 166 18 19 8 12 21 100 222 24 23 26 27 25 6 6 29 28 4 2	2670,763 0.000929167 3492,690 0.000796817 3082,620 0.000660605 2260,683 0.000620968 4109,547 0.000474411 2877,660 0.000441407 3287,610 0.000439497 3697,790 0.000411709 3902,860 0.000386342 1645,813 0.000362331 2465,727 0.0002576844 2055,820 0.000236209 4521,430 0.000180676 4933,237 0.000161119 4728,227 0.000118293 5343,453 0.000118293 5343,453 0.000118293 5343,453 0.000118293 5343,453 0.000118293 5343,453 0.000118293 5343,453 0.000118294 55138,477 6.6152E-005 1231,890 6.5067E-005 5958,557 0.000056440 5753,607 4.0810E-005 409,957 2.2573E-005	41.24% 31.19% 26.75% 22.18% 10.66% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 6.06% 5.41% 3.97% 3.27% 2.22% 2.188% 1.89% 0.83% 0.76%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82 114.11 179.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.34% 0.34% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.25% 0.20% 0.20%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 9.9 0.04% 1.3 0.04% 1.4 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.03% 2.8 0.05% 11.7 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.8 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 3.5 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.03% 6.1 0.04% 7.8 0.04% 7.8
111 200 144 166 18 19 8 12 21 10 22 24 23 26 27 7 25 6 6 29 28 4 2 2 Sound 6 NHN 1	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.0002578644 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000161119 4728.227 0.00118293 5343.453 0.000118293 5343.453 0.000118293 5343.453 0.000118293 5343.453 0.000118293 5343.455 0.000067429 5585.857 0.00056449 5753.607 4.0810E-005 821.719 2.4822E-005 409.957 2.2573E-005	41.24% 31.19% 26.75% 22.18% 16.06% 14.82% 14.75% 13.82% 9.29% 8.66% 7.79% 3.97% 3.97% 3.87% 3.27% 2.22% 2.18% 1.89% 0.76%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 111.55 86.82 114.11 113.51 79.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.25% 0.22% 0.26% 0.22% 0.26% 0.22% 0.26% 0.22% 0.26% 0.22% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.25% 0.22% 0.26% 0.27% 0.24% 0.20% 0.20% 0.20% 0.20% 0.20%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 7.8 0.03% 10.8 0.06% 7.8 0.06% 7.8 0.04% 0.5 0.05% 11.7 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 3.5 0.04% 4.2 0.04% 4.2 0.04% 4.2 0.04% 5.5 0.05% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.03% 6.1 0.03% 5.5 0.04% 7.8 0.03% 7.8 0.03% 7.8 0.03% 7.8 0.03% 7.8 0.03% 7.8
111 200 144 166 18 19 8 12 21 100 22 24 23 26 27 25 6 6 29 28 4 2 2 Sound 6 NHN 1 1 5	2670.763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000478411 2877.660 0.00043497 3897.790 0.000431709 3902.860 0.000386342 1465.727 0.000276603 4316.527 0.000276803 4316.527 0.000276804 420.55.820 0.000232209 4521.430 0.000180676 4933.237 0.0001180276 4933.237 0.0001180276 1531.8487 0.000180676 1531.8497 0.61522-005 1231.890 6.50672-005 5958.557 0.00056449 5753.607 4.08102-005 821.719 2.48222-005 409.957 2.2573E-005	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 12.97% 12.18% 9.29% 6.06% 7.79% 6.06% 5.41% 3.97% 2.22% 1.89% 1.37% 2.228% 1.89% 0.83% 0.76%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82 114.11 179.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00 Interval from Fundamental 0.00 27.86	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.14% 0.20% 0.00%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 2.5 0.04% 2.5 0.04% 2.5 0.04% 2.5 0.04% 2.5 0.04% 2.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 3.5 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.05% 11.7
111 200 144 166 18 19 8 12 21 110 20 22 24 23 26 27 75 6 6 29 28 4 2 2	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.0002576844 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000161119 4728.227 0.000118293 5343.453 0.000118293 5343.453 0.000118293 5343.457 6.6152E-005 1231.890 6.5067E-005 5958.557 0.000056449 5753.607 4.0810E-005 821.719 2.4822E-005 409.957 2.2573E-005	41.24% 31.19% 26.75% 22.18% 10.06% 14.82% 12.97% 12.18% 9.29% 6.06% 7.79% 6.06% 5.41% 3.97% 2.22% 2.18% 1.89% 0.83% 0.76% Amp Ratio 100.00% 71.48% 66.46% 65.95%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 98.84 110.11 112.23 112.88 111.55 86.82 114.11 179.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00 Interval from Fundamental 0.00 27.86 19.02 33.69	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.20% 0.20% 0.00% 0.00%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 2.8 0.04% 2.1 0.04% 2.1 0.04% 2.1 0.04% 2.8 0.04% 7.8 0.05% 11.7 0.04% 2.8 0.05% 17.7 0.04% 7.8 0.05% 17.7 0.04% 7.8 0.05% 17.7 0.04% 7.8 0.05% 17.7 0.04% 7.8 0.05% 17.7 0.04% 7.8 0.05% 17.7 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.05% 17.8 0.05% 17.8 0.05% 17.8 0.05% 18.8 0.05% 19.8 0.05%
11 200 14 16 18 19 8 12 21 10 10 22 24 23 26 27 25 6 29 28 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000478411 2877.660 0.00043497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.000276603 4316.527 0.000252844 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.000181097 4728.227 0.000118293 5343.453 0.000115293 5343.453 0.0001163293 5343.453 0.0001163293 5343.453 0.00016319 4728.227 0.000180676 4933.237 0.00016119 4728.227 0.000180676 4933.237 0.00016119 4728.227 0.000180676 4933.237 0.00016109 5584.577 0.00056449 5753.607 4.0810E-005 5585.557 0.00056449 5753.607 4.0810E-005 521.719 2.482E-005 409.957 2.2573E-005	41.24% 31.19% 26.75% 22.18% 20.84% 16.06% 14.82% 12.97% 13.82% 12.97% 6.06% 5.41% 3.97% 6.06% 5.41% 3.97% 2.22% 2.18% 1.89% 1.37% 2.22% 2.18% 1.89% 1.37% 2.76% 6.66 6.66% 5.55.55%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82 114.11 113.51 79.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.76 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00 Interval from Fundamental 0.00 27.86 19.02 33.69 44.53	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.24% 0.25% 0.25% 0.22% 0.25% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.14% 0.22% 0.25% 0.14% 0.22% 0.20% 0.00% 0.00% -0.01% 0.00% 0.00%	0.00%
111 200 144 166 18 19 8 12 221 100 222 244 223 266 277 255 6 6 299 28 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000447807 3287.610 0.000439497 3397.790 0.000411709 3902.860 0.000386342 2465.727 0.000276603 4316.527 0.000276803 4316.527 0.000276804 420.55.820 0.000232209 4521.430 0.000180676 4933.237 0.000161119 4728.227 0.000180676 4933.237 0.00016119 4728.227 0.00018293 5343.453 0.000118293 5343.453 0.000118293 5343.453 0.000163291 271.890 6.50672-005 281.719 2.4822E-005 409.957 2.2573E-005	41.24% 31.19% 31.19% 26.75% 22.18% 16.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 6.06% 5.41% 3.97% 2.22% 2.188% 1.89% 0.76% Amp Ratio 100.00% 71.48% 66.46% 65.95% 64.73% 46.47% 33.95%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 611.55 86.82 114.11 113.51 79.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00 Interval from Fundamental 0.00 27.86 19.02 33.69 41.53 45.71 31.02	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.22% 0.20% 0.19% 0.34% 0.22% 0.26% 0.27% 0.24% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.27% 0.24% 0.25% 0.05% 0.05% 0.11% 0.00% 0.13% 0.00% 0.00% 0.00% 0.13% 0.13% 0.13% 0.13%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5 0.04% 7.8 0.03% 9.9 0.03% 10.8 0.06% 7.8 0.04% 2.8 0.04% 2.5 0.04% 2.5 0.04% 2.8 0.04% 2.1 0.04% 2.1 0.04% 3.5 0.05% 11.7 0.04% 3.5 0.05% 17.7 0.04% 7.8 0.05% 7.8 0.05% 7.8 0.05% 7.8 0.05% 7.8 0.05% 7.8 0.05% 1.7 0.04% 2.8 0.04% 2.1 0.04% 2.1 0.04% 3.5 0.03% 6.1 0.03% 6.5 0.04% 7.8 0.00% 7.8 0.00% 7.8
11 200 144 166 18 19 8 12 21 110 22 24 23 26 27 25 6 29 28 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2670,763 0.000929167 3492.690 0.000796817 3082.620 0.000660605 2260.683 0.000620968 4109.547 0.000478411 2877.660 0.000441407 3287.610 0.000439497 3697.790 0.000411709 3902.860 0.000386342 1645.813 0.000362931 2465.727 0.0002578644 2055.820 0.000232209 4521.430 0.000180676 4933.237 0.0001611293 5343.453 0.000118293 5343.453 0.000118293 5343.453 0.000118293 5343.453 0.00016524 5548.487 0.00097429 5138.477 6.6152E-005 1231.890 6.5067E-005 5958.557 0.00056449 5753.607 4.0810E-005 821.719 2.4822E-005	41.24% 31.19% 26.75% 22.18% 10.06% 14.82% 14.75% 13.82% 12.97% 12.18% 9.29% 8.66% 7.79% 3.87% 3.87% 3.87% 3.87% 3.87% 3.87% 0.83% 0.76% Amp Ratio 100.00% 71.48% 66.46% 55.95% 46.47%	83.67 100.22 104.87 102.70 97.33 107.68 101.51 103.82 105.85 106.79 91.84 98.84 108.53 95.69 109.33 110.84 110.11 112.23 112.88 111.55 86.82 114.11 179.81 67.78	38.09 27.89 44.44 49.09 46.92 41.55 51.90 45.73 48.04 50.07 51.01 36.06 43.06 52.75 39.91 53.55 55.06 54.33 56.45 57.10 55.77 31.04 58.33 57.73 24.03 12.00 Interval from Fundamental 0.00 27.86 19.02 33.69 41.53 45.71	Notes	0.01% 0.29% 0.18% 0.20% 0.21% 0.24% 0.22% 0.25% 0.25% 0.22% 0.34% 0.22% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.26% 0.27% 0.24% 0.20% 0.00%	0.00% 2.8 0.05% 9.9 0.04% 11.7 0.04% 4.2 0.03% 8.9 0.04% 6.7 0.04% 1.3 0.04% 5.5 0.04% 7.8 0.03% 10.8 0.06% 7.8 0.06% 7.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 2.8 0.04% 7.8 0.05% 17.7 0.04% 1.3 0.04% 2.8 0.04% 2.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.04% 7.8 0.05% 7.8 0.05% 1.7 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.04% 1.3 0.00% 1.3 0.0

				Appendix 2				
16 9 13 18 24 8 10 17 23 21 19 22 15 20 4	4144.027 0.000797814 2329.797 0.000718986 3368.127 0.000676956 4661.270 0.000486233 6213.077 0.000486125 2071.190 0.00044324 2590.287 0.00044324 4402.847 0.000418936 5954.547 0.00040825 5437.207 0.000406009 4919.967 0.000406009 4919.967 0.000341445 5695.757 0.000303703 3885.317 0.00027606 5178.760 0.000159895 1034.557 0.000138971 517.279 7.7109E-005	29.72% 26.78% 25.22% 18.11% 18.11% 16.51% 15.61% 15.21% 15.12% 11.31% 12.72% 11.09% 5.96% 5.18% 2.87%	107.83 97.86 104.24 109.86 114.84 95.82 99.69 108.87 114.10 112.53 110.80 113.33 106.71 111.68 83.80 71.80	48.02 38.05 44.43 50.06 55.03 36.01 39.89 49.07 54.30 52.72 50.99 53.53 46.91 51.88 24.00 12.00		0.13% 0.07% 0.16% 0.11% 0.08% 0.09% 0.14% 0.08% 0.09% 0.10% 0.10% 0.09%	0.02% 0.01% 0.03% 0.02% 0.01% 0.02% 0.02% 0.01% 0.01% 0.01% 0.02% 0.01% 0.02% 0.02% 0.02% 0.02%	11.8 1.9 6.8 11.8 3.7 0.9 6.1 4.5 2.8 5.3 10.7 3.7 11.8
	llumeau – staccato 1		D' 1 (MD1 ()			D: (II) D:	(0)(1)	
NHN 1 1 3 5 7 7 4 8 8 13 6 12 14 9 11 15 2 15 10 17 13	requency Amplitude A 205.471 0.001280655 624.195 0.000331041 1032.183 0.000214527 1453.033 0.000114123 824.582 7.6641E-005 1657.493 7.0777E-005 2672.890 6.0262E-005 1233.267 0.000053298 2457.013 4.9935E-005 2263.867 0.000038239 1855.497 3.335E-005 2267.397 1.7596E-005 3069.347 1.7490E-005 409.840 1.6223E-005 3124.747 1.2871E-005 2044.100 9.7797E-006 3490.697 5.6994E-006 2578.217 0.000005346	Imp Ratio 100.00% 25.85% 16.75% 8.91% 5.98% 5.53% 4.71% 4.16% 3.89% 2.60% 1.37% 1.37% 1.27% 0.76% 0.45% 0.42%	Pitch (MIDI #) 55.82 75.05 83.76 89.68 79.87 91.96 100.23 86.84 98.78 101.37 93.91 97.39 102.63 67.77 102.94 95.59 104.86 99.61	Interval from Fundamental 0.00 19.24 27.94 33.86 24.06 36.14 44.42 31.03 42.96 45.55 38.10 41.57 46.81 11.95 47.12 39.77 49.04 43.79	Notes	Diversion (Hz) Diver 0.00% 1.26% 0.47% 1.02% 0.33% 0.83% 0.07% 0.04% -0.35% -0.80% 0.34% 0.32% -0.41% -0.27% 1.38% -0.52% -0.07% -3.48%	0.00% 0.29% 0.10% 0.20% 0.10% 0.07% 0.01% 0.01% -0.06% -0.14% 0.06% -0.07% 0.06% -0.07% -0.07% 0.23% -0.09% -0.01% -0.061%	7.8 3.1 11.8 5.7 7.9 8.0 4.2 2.8 5.4 9.9 1.4 6.9 11.6 8.9 3.6
		Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
1 5 4 11 2 6 9 12 7 8 13 15 13	259.775 0.000902462 785.951 0.00041317 1306.817 0.000148898 1047.347 0.000148895 528.570 9.7808E-005 1567.427 6.6588E-005 2347.237 6.1261E-005 3117.980 5.8461E-005 1815.863 4.4310E-005 2079.373 3.9280E-005 3370.857 2.4983E-005 3897.590 2.0906E-005 3490.970 5.7601E-006	100.00% 45.78% 16.50% 15.88% 14.02% 10.84% 7.38% 6.79% 6.48% 4.91% 4.35% 2.77% 2.32% 0.64%	59.88 79.04 87.85 84.01 101.38 72.01 90.99 97.98 102.90 93.54 95.89 104.25 106.76 104.86	0.00 19.17 27.97 24.14 41.50 12.13 31.12 38.11 43.02 33.66 36.01 44.37 46.89 44.98	INHARMONIC	0.00% 0.85% 0.61% 0.79% -0.07% 0.77% 0.56% 0.40% -0.14% 0.06% -0.18% 0.02% 3.37%	0.00% 0.19% 0.12% 0.16% 0.01% 0.19% 0.01% 0.07% 0.00% -0.03% 0.01% -0.03% 0.00%	11.9 7.0 3.8 0.0 5.4 0.0 7.0 2.0 6.9 9.5 11.9 8.3 10.8
	ılumeau – legato – high G#							
NHN 1 1 3 7 4 5 6 8 2 9 10 15 16 7	requency Amplitude A 419.347 0.001396973 1258.137 0.000556118 2931.870 0.000223522 1675.557 0.000179421 2095.047 0.000147927 2514.753 0.000135649 3351.390 0.000136435 838.787 8.6407E-005 4188.197 1.7267E-005 6285.857 1.1505E-005 6698.323 1.1150E-005 2781.237 6.1248E-006	Mmp Ratio 100.00% 39.81% 16.00% 12.84% 10.59% 9.71% 9.65% 6.19% 3.61% 1.24% 0.82% 0.80% 0.44%	Pitch (MIDI#) 68.17 87.19 101.83 92.15 96.02 99.18 104.15 80.17 106.19 108.01 115.04 116.14 100.92	Interval from Fundamental 0.00 19.02 33.67 23.98 27.85 31.01 35.98 12.00 38.03 39.84 46.87 47.97 32.75	Notes INHARMONIC	Diversion (Hz) Diver 0.00% 0.01% -0.12% -0.11% -0.08% -0.05% -0.10% 0.01% -0.08% -0.13% -0.07% -0.17% -5.25%	0.00% 0.00% -0.02% -0.02% -0.01% -0.01% -0.01% -0.01% -0.02% -0.01% -0.02% -0.02%	8.2 8.2 5.8 8.1 0.0 3.2 8.2 8.2 10.2 0.0 7.0 8.1 4.9
Sound 10 Cha	dumanu lagata C							
	httmeau – legato – G requency Amplitude A 397.191 0.001298497 1186.273 0.000742211 2771.697 0.000342053 3169.070 0.000223464 1583.567 0.000195297 2377.863 0.000161879 3564.417 0.000135644 1980.513 9.5018E-005 794.432 8.2737E-005 3961.160 3.6795E-005 4358.880 2.9789E-005 3029.457 6.4359E-006	Amp Ratio 100.00% 57.16% 26.34% 17.21% 15.04% 12.47% 10.45% 7.32% 6.37% 2.83% 2.29% 0.50%	Pitch (MIDI #) 67.23 86.17 100.86 103.18 91.17 98.21 105.22 95.04 79.23 107.04 108.70 102.40	Interval from Fundamental 0.00 18.94 33.63 35.95 23.94 30.98 37.99 27.82 12.00 39.82 41.47 35.17	Notes INHARMONIC	Diversion (Hz) Diver 0.00% -0.44% -0.31% -0.27% -0.33% -0.22% -0.29% -0.27% 0.01% -0.27% -0.27% -0.23% -4.66%	sion (Pitch) 0.00% -0.09% -0.05% -0.04% -0.06% -0.04% -0.05% -0.05% -0.04% -0.05% -0.05% -0.04% -0.08%	7.2 2.2 4.9 7.2 2.2 2.2 9.2 11.0 7.2 11.0 0.7 6.4
	Jumeau – legato – Frequency Amplitude 346.629 0.00264908 1045.263 0.000439375 2442.477 0.000402012 2789.267 0.00028089 1397.280 0.000257074 3139.203 0.00016327 1743.573 0.000154865 3487.817 0.00019582 2090.533 8.5219E-005 698.619 0.00008732 3834.323 0.000044524	Amp Ratio 100.00% 16.59% 15.18% 10.60% 9.70% 6.05% 5.84% 4.14% 3.22% 2.59% 1.68%	Pitch (MIDI #) 64.87 83.98 98.67 100.97 89.00 103.02 92.84 104.84 95.98 77.00 106.48	Interval from Fundamental 0.00 19.11 33.80 36.10 24.13 38.15 27.97 39.97 31.11 12.13 41.61	Notes	Diversion (Hz) Diver 0.00% 0.52% 0.66% 0.59% 0.78% 0.63% 0.60% 0.62% 0.52% 0.77% 0.56%	sion (Pitch) 0.00% 0.11% 0.12% 0.10% 0.15% 0.11% 0.11% 0.11% 0.10% 0.09%	4.9 12.0 2.7 5.0 7.0 8.8 8.8 12.0 5.0

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				Appendix 2				
18 13	6276.503 1.6850E-005 4533.367 1.5991E-005	0.64% 0.60%	115.01 109.38	50.14 44.51		0.60% 0.60%	0.09% 0.10%	7.0 1.4
20 19	6972.997 1.3876E-005 6625.620 1.2332E-005	0.52% 0.47%	116.83 115.95	51.96 51.08		0.58% 0.60%	0.09% 0.09%	8.8 7.9
Sound 12 Cha	alumeau – legato – Eb							
NHN F	Frequency Amplitude A 312.219 0.002023657	Amp Ratio 100.00%	Pitch (MIDI #) 63.06	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) Pi	itch Class 3.1
3 5	936.499 0.00037508 1560.747 0.000236518	18.53% 11.69%	82.08 90.92	19.02 27.86		-0.02% -0.02%	0.00% 0.00%	10.1 6.9
9 7	2807.277 0.00019416 2184.673 0.000137324	9.59% 6.79%	101.08 96.74	38.02 33.68		-0.10% -0.04%	-0.02% -0.01%	5.1 0.7
4 8	1248.587 0.000131545 2495.223 0.000130167	6.50% 6.43%	87.06 99.04	24.00 35.98		-0.02% -0.10%	0.00% -0.02%	3.1 3.0
10 6	3119.303 0.000114703 1872.393 0.000100447	5.67% 4.96%	102.91 94.07	39.85 31.01		-0.09% -0.05%	-0.02% -0.01%	6.9 10.1
2 12	624.309 3.6916E-005 3740.983 3.5932E-005	1.82% 1.78%	75.06 106.05	12.00 42.99		-0.02%	0.00%	3.1 10.1
11	3430.747 3.5283E-005	1.74%	104.56	41.49		-0.15% -0.11%	-0.02%	8.6
13 14	4055.527 1.8647E-005 4367.413 1.6418E-005	0.92% 0.81%	107.45 108.73	44.39 45.67		-0.08% -0.08%	-0.01% -0.01%	11.5 0.7
15 16	4680.167 1.4363E-005 4991.727 8.2348E-006	0.71% 0.41%	109.93 111.05	46.87 47.99		-0.07% -0.08%	-0.01% -0.01%	1.9 3.0
	alumeau – legato – C#		D' 1 (MID) (0)			5: (11) 5:	. (5)(1)	
1	278.124 0.001279497	100.00%	Pitch (MIDI #) 61.06	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	0.00%	1.1
3 5	829.060 0.000639162 1379.877 0.0004416	49.95% 34.51%	79.97 88.79	18.91 27.73		-0.64% -0.77%	-0.14% -0.15%	8.0 4.8
6 9	1658.130 0.000336524 2487.100 0.000276748	26.30% 21.63%	91.97 98.99	30.91 37.93		-0.64% -0.64%	-0.12% -0.11%	8.0 3.0
7 10	1936.313 0.000185847 2763.473 0.000128346	14.52% 10.03%	94.65 100.81	33.59 39.75		-0.54% -0.64%	-0.10% -0.11%	10.7 4.8
4 8	1107.357 0.000124831 2210.820 0.000117652	9.76% 9.20%	84.98 96.95	23.92 35.89		-0.46% -0.64%	-0.09% -0.11%	1.0 0.9
12 11	3315.963 7.1712E-005 3039.663 5.7953E-005	5.60% 4.53%	103.97 102.46	42.91 41.40		-0.64% -0.64%	-0.11% -0.11%	8.0 6.5
2 14	550.992 5.2081E-005 3868.747 4.7824E-005	4.07% 3.74%	72.89 106.64	11.84 45.58		-0.94% -0.64%	-0.22% -0.10%	0.9 10.6
13 17	3592.343 0.000040294 4698.053 1.6169E-005	3.15% 1.26%	105.35 110.00	44.29 48.94		-0.64% -0.64%	-0.11% -0.10%	9.4 2.0
15	4148.150 1.1326E-005 4421.337 8.77117E-006	0.89% 0.69%	107.84 108.95	46.78 47.89		-0.57% -0.64%	-0.09% -0.10%	11.8 0.9
16 9 24	2419.230 6.2892E-006 6630.527 6.2653E-006	0.49% 0.49%	98.51 115.96	37.45 54.90	INHARMONIC	-3.35% -0.67%	-0.60% -0.10%	2.5 8.0
8 18	2332.570 4.9599E-006 4974.427 0.000004853	0.39% 0.38%	97.88 110.99	36.82 49.93	INHARMONIC	4.83% -0.64%	0.84% -0.10%	1.9 3.0
		0.0070	.,			0.0.1,0	511570	
Sound 14 Cha	alumeau – legato – C							
		Amp Ratio	Pitch (MIDI #) 59.88	Interval from Fundamental	Notes	Diversion (Hz) Diver		
NHN F	Frequency Amplitude 259.887 0.001342233 785.193 0.000559045	100.00% 41.65%	59.88 79.03	0.00 19.14	Notes	0.00% 0.71%	0.00% 0.16%	11.9 7.0
NHN	Frequency 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845	100.00% 41.65% 32.12% 21.20%	59.88 79.03 87.82 91.03	0.00 19.14 27.94 31.14	Notes	0.00% 0.71% 0.42% 0.71%	0.00% 0.16% 0.08% 0.13%	11.9 7.0 3.8 7.0
NHN 1 3 5 6 10 8	Frequency Amplitude A 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246	100.00% 41.65% 32.12% 21.20% 12.52% 11.49%	59.88 79.03 87.82 91.03 99.86 95.98	0.00 19.14 27.94 31.14 39.97 36.09	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.53%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09%	11.9 7.0 3.8 7.0 3.9 12.0
NHN 1 3 5 6 10 8 9 7	Frequency Amplitude A 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246 2353.577 0.000146026 1830.373 0.000143904	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7
NHN 1 1 3 3 5 6 10 8 9 7 12 4	Frequency Amplitude A 259.887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246 2353.577 0.000146026 1830.373 0.000143904 3136.837 0.000114917	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72% 8.89% 8.56%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.58%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.11% 0.10%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 12.0
NHN 1 1 3 5 6 6 10 8 9 7 112 4 111 2 2	Frequency Amplitude A 259,887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000144904 13136.837 0.000119263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72% 8.89% 8.56% 7.70% 6.65%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.62% 0.61% 0.55% 0.53% 1.05%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10%	11.9 7.0 3.8 7.0 3.9 12.0 9.7 7.0 12.0 5.5
NHN	Frequency 259.887 0.001342233 785.193 0.000559045 1304.917 0.0002431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.0001542246 2353.577 0.00014026 1830.373 0.000143904 3136.837 0.000119263 1045.057 0.000119217 2875.183 0.000103347 525.307 8.9235E-005 3398.683 0.00032887	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72% 8.89% 8.56% 7.70% 6.65% 5.64% 2.45%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.58% 0.53% 0.57% 1.06%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.10% 0.26% 0.10%	11.9 7.0 3.8 7.0 3.9 12.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4
NHN	Frequency Amplitude 2 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246 2353.577 0.000146026 1830.373 0.000143904 3136.837 0.000119263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3366.437 7.5660E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.000104644	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72% 8.89% 8.56% 7.70% 6.65% 5.64% 2.45% 1.34%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.62% 0.61% 0.53% 0.53% 0.53% 0.67% 1.06% 0.61% 0.60%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.11% 0.10% 0.10% 0.26% 0.10% 0.10% 0.09%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4 10.9
NHN 1 1 3 5 6 6 10 8 9 7 7 12 4 11 1 2 14 13 15 15	Frequency Amplitude A 259,887 0,001342233 785,193 0,000559045 1304,917 0,000431169 1570,393 0,0002845 2615,213 0,000168053 2090,010 0,000154246 2353,577 0,000146026 1830,373 0,000143904 3136,837 0,000119283 1045,057 0,000119217 2875,183 0,000103345 7525,307 8,92355-005 3660,437 7,5660E-005 3398,683 0,000032887 3920,427 1,7937E-005	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 8.56% 7.70% 6.65% 5.64% 2.45%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.62% 0.61% 0.55% 0.55% 1.06% 0.61% 0.61%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.10%	11.9 7.0 3.8 7.0 3.9 12.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4
NHN 1 1 3 5 6 6 10 8 9 7 7 12 4 11 2 14 13 15 16 16 18	Frequency Amplitude A 259,887 0,001342233 785.193 0,000559045 1304.917 0,000431169 1570.393 0,0002845 2615.213 0,000168053 2990.010 0,000146026 1830.373 0,000149263 1045.087 0,000114917 2875.183 0,00013347 525.307 8,9235E-005 3368.633 0,00032887 3920.427 1,7937E-005 4181.787 0,00014644 4704.697 7,3914E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.88% 10.72% 8.89% 8.56% 5.64% 5.64% 5.64% 1.34% 1.09% 0.555%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.55% 1.06% 0.67% 0.67% 0.57% 1.06%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.09%	11.9 7.0 3.8 7.0 2.0 2.0 9.7 7.0 12.0 5.5 0.1 9.7 12.0 2.0
NHN	Frequency 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246 2353.577 0.000146026 1830.373 0.000143904 3136.837 0.00019263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.00014644 4704.697 7.3914E-006 4964.737 5.9707E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 5.64% 2.45% 1.34% 0.55% 0.44%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.58% 0.53% 0.57% 1.06% 0.61% 0.61% 0.67% 0.67% 0.67%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.10% 0.10% 0.10% 0.09% 0.09% 0.09%	11.9 7.0 3.8 7.0 2.0 2.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4 10.9 12.0 3.0
NHN F 1 3 5 6 6 10 8 9 7 12 2 14 13 15 16 18 19 15 16 18 19 15 16 18 19 15 16 18 19 15 16 18 19 15 16 18 19 15 16 18 19 15 16 16 16 16 16 16 16	Frequency Amplitude / 259.887	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 2.45% 1.34% 1.09% 0.55% 0.44%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.58% 0.53% 0.67% 1.06% 0.61% 0.56% 0.57% 0.57% 0.57% 0.57%	0.00% 0.16% 0.08% 0.18% 0.11% 0.09% 0.11% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4 10.9 2.0 3.0
NHN F 1 3 5 6 6 6 6 6 6 6 6 6	Frequency Amplitude / 259,887	100.00% 41.65% 32.12% 21.20% 21.20% 10.88% 10.72% 8.89% 7.70% 6.65% 5.64% 2.45% 0.55% 0.44%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.63% 0.61% 0.53% 0.61% 0.53% 0.57% 1.06% 0.57% 0.61% 0.57% 0.57% 0.57% 0.57% 0.57% -0.57%	0.00% 0.16% 0.08% 0.18% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09% 0.09%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 12.0 5.5 0.1 9.7 8.4 10.9 12.0 2.0 3.0
NHN F 1 3 5 6 6 10 8 9 7 7 12 4 11 2 14 13 15 16 18 19 19 19 19 19 10 10 10	Frequency Amplitude A 259,887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000146026 1830.373 0.000149263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3660.437 7.5660E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.000014604 4704.697 7.3914E-006 4964.737 5.9707E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 5.64% 2.45% 1.09% 0.55% 0.44%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.58% 0.57% 1.06% 0.61% 0.65% 0.57% 0.57% 0.57% 0.54%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.10% 0.00% 0.09% 0.09% 0.09% 0.09% 0.08%	11.9 7.0 3.8 7.0 2.0 2.0 9.7 7.0 12.0 12.0 12.0 2.0 3.0 14.0 3.0 15.5 0.1 8.4 10.9 12.0 3.0 18.6 19.9 19.9
NHN F	Frequency Amplitude / 259,887	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 5.64% 2.45% 1.34% 0.55% 0.44%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.53% 0.55% 1.06% 0.61% 0.57% 0.57% 0.57% 0.57% 0.57% 0.57% 0.15% 0.57% 0.57% 0.57% 0.57% 0.15% 0.57% 0.51%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	11.9 7.0 3.8 7.0 2.0 2.0 12.0 12.0 12.0 12.0 12.0 3.0 15.5 0.1 9.7 8.4 10.9 12.0 3.0 15.0 1.8 7.6 9.9 12.0 9.9
NHN 5 6 10 8 8 9 7 112 4 111 2 14 113 15 16 18 19 19 19 19 19 10 10 10	Frequency Amplitude / 259.887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000154246 2353.577 0.000146026 1830.373 0.000143904 3136.837 0.000114917 2875.183 0.000114917 2875.183 0.000113547 525.307 8.92355-005 3660.437 7.5660E-005 3398.683 0.00032887 3920.427 1.7937E-005 4181.787 0.00014644 4704.697 7.3914E-006 4964.737 5.9707E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 1.34% 2.45% 0.45% 0.44% Amp Ratio 100.00% 52.78% 49.25% 41.67% 6.90% 4.59% 3.66% 3.48% 3.34%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.88 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.53% 0.65% 0.61% 0.57% 1.06% 0.61% 0.57% 0.57% 0.57% 0.57% 0.57% 0.15% 0.54%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% -0.18% -0.18% -0.18% -0.19% -0.18%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 12.0 12.0 5.5 0.1 9.7 8.4 10.9 12.0 2.0 3.0 itch Class 10.1 5.0 1.8 7.6 9.9 12.0 9.9 1.8 3.4
NHN F 1 3 5 6 6 6 6 6 6 6 6 6	Frequency Amplitude / 259.887	100.00% 41.65% 32.12% 21.20% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 6.65% 0.44% 1.09% 0.555% 0.44% 4.52% 4.45% 6.90% 4.525% 1.467% 6.90% 4.59% 3.34% 2.70%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 95.96 81.90 97.78 99.43 69.90 110.93	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.63% 0.65% 0.61% 0.58% 0.57% 1.06% 0.57% 0.57% 0.57% 0.57% 0.57% 0.57% 0.14% -0.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.15% -1.03% -1.15% -1.03%	0.00% 0.16% 0.08% 0.18% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 12.0 12.0 5.5 0.1 10.9 12.0 3.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 1
NHN 5 6 6 10 8 8 9 7 12 4 11 13 15 16 18 19 19 19 19 19 19 10 11 12 12 13 14 14 15 16 16 16 17 18 19 19 10 10 10 10 10 10	Frequency Amplitude A 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000146026 1830.373 0.000143904 3136.837 0.000119263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3660.437 7.5660E-005 3398.683 0.000032887 392.0427 1.7937E-005 4181.787 0.000014644 4704.697 7.3914E-006 4964.737 525.307 0.00014604 4704.697 7.3914E-006 4964.737 0.000998309 67.967 0.000526867 1161.450 0.000491697 1624.823 0.00014644 154.00098339 165.483 1854.010 6.8882E-005 2088.587 4.5870E-005 219.037 3.4734E-005	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 7.70% 6.65% 7.70% 6.65% 0.44% 1.09% 0.55% 0.44% 2.45% 1.09% 0.55% 0.44% 3.68% 3.34% 3.34% 3.34% 3.34% 1.66% 3.48% 3.34% 1.27% 1.12%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90 97.78 99.43 69.90 100.93 100.93 100.93 100.93 100.93	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07		0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.63% 0.65% 0.61% 0.55% 0.57% 1.06% 0.57% 0.57% 0.57% 0.57% 0.57% 0.57% 0.14% 0.98% -1.144% -1.00% -1.144% -1.00% -1.15% -1.03% -1.15% -1.08% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09% -1.09%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 12.0 5.5 0.1 12.0 2.0 3.0 12.0 2.0 3.0 12.0 2.0 3.0 12.0 4.9 9.9 1.8 3.4 9.9 4.9 6.3 7.6
NHN F F F F F F F F F	Frequency 259.88 Amplitude 259.887 0.001342233 785.193 0.000559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000144926 2353.577 0.000144926 1336.837 0.000119263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.000014644 4704.697 7.3914E-006 4964.737 525.307 8.9235E-005 234.413 0.000988309 697.967 0.000526867 1161.450 0.000491897 1624.823 0.000146428 1854.010 6.8882E-005 2088.587 4.8570E-005 219.0005 2551.867 3.3370E-005 2782.593 1.6596E-005 3250.568 1.1172E-005 3250.568 1.1528.990 5.5854E-006 1528.990 5.5854E-006 1528.990 5.5854E-006 1528.990 5.5854E-006 1528.990 5.5854E-006 1528.990 5.5854E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 2.45% 1.349% 0.55% 0.44% Amp Ratio 100.00% 52.78% 49.25% 14.67% 6.90% 4.59% 3.66% 3.48% 3.34% 2.70% 1.66% 3.48% 0.270% 1.12% 0.81% 0.81%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90 97.78 99.43 69.90 100.93 102.32 103.62 104.81	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.58% 0.55% 1.06% 0.61% 0.60% 0.57% 0.57% 0.57% 0.57% 0.57% 0.15% 0.14% 0.95% 0.14% 0.14% 0.10% 0.14% 0.15% 0.15% 0.15% 0.57%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08%	11.9 7.0 7.0 12.0 2.0 12.0 12.0 12.0 12.0 12.0 3.0 12.0 12.0 3.0 12.0 3.0 12.0 3.0 12.0 3.0 12.0 3.0
NHN F 1 3 5 6 6 6 6 6 6 6 6 6	Frequency Amplitude 259.887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000148246 2353.577 0.000146026 1830.373 0.000149263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3660.437 7.5660E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.00014644 4704.697 7.3914E-006 4964.737 5.9707E-006 4964.737 5.9707E-006 4964.737 5.9707E-006 4964.737 5.9707E-006 5.000526857 161.450 0.000491697 1624.823 0.000146428 1854.010 6.8882E-005 2088.587 4.5870E-005 926.952 3.6510E-005 2551.867 3.3370E-005 463.418 2.7003E-005 3015.790 1.2653E-005 3015.790 1.2653E-005 3015.790 1.2653E-005 3015.790 1.172E-005 3481.347 8.1336E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 2.45% 0.45% 0.44% Amp Ratio 100.00% 52.78% 49.25% 49.25% 49.26% 3.66% 4.59% 3.34% 2.70% 6.90% 4.59% 3.48% 3.34% 2.70% 1.27% 1.12% 1.12% 0.811%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.88 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 35.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.66% 0.61% 0.58% 0.53% 0.67% 1.06% 0.57% 1.057% 0.57% 0.57% 0.57% 0.57% 0.157% 0.157% 0.54%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.10% 0.10% 0.00% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% 0.19% 0.19% 0.18% 0.19% 0.18% 0.19% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18%	11.9 7.0 7.0 3.9 12.0 2.0 12.0 12.0 12.0 2.0 3.0 12.0 3.0 12.0 3.0 12.0 3.0 14.0 9.9 12.0 9.9 1.8 7.6 9.9 12.0 9.9 1.8 7.6 9.9 1.8 7.6 9.9 1.8 8.8
NHN 5 6 6 10 8 8 9 7 12 4 11 15 16 18 19 19 10 11 12 12 13 14 15 7 12 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 13 14 15 7 12 15 16 16 16 16 16 16 16	Frequency Amplitude 259.887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000144904 3136.837 0.000119263 1045.057 0.00014917 2875.183 0.000103347 525.307 8.9235E-005 3660.437 7.5660E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.00014644 470.4697 7.3914E-006 4964.737 525.307 0.00014644 470.4697 7.3914E-006 4964.737 0.000988309 697.967 0.000526867 1161.450 0.000491697 1624.823 0.00014664 1854.010 6.8882E-005 2319.037 3.4734E-005 2551.867 3.3370E-005 463.418 2.7003E-005 2782.593 1.6598E-005 3315.790 1.2653E-005 3250.566 1.1172E-005 4813.47 8.1336E-006 1528.980 5.5854E-006 2917.310 4.71174E-006	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 2.45% 1.349% 0.55% 0.44% Amp Ratio 100.00% 52.78% 49.25% 14.67% 6.90% 4.59% 3.66% 3.48% 3.34% 2.70% 1.66% 3.48% 0.270% 1.12% 0.81% 0.81%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90 97.78 99.43 69.90 100.93 102.32 103.62 104.81	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.53% 0.62% 0.61% 0.58% 0.55% 1.06% 0.61% 0.60% 0.57% 0.57% 0.57% 0.57% 0.57% 0.15% 0.14% 0.95% 0.14% 0.14% 0.10% 0.14% 0.15% 0.15% 0.15% 0.57%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08%	11.9 7.0 7.0 12.0 2.0 12.0 12.0 12.0 12.0 12.0 3.0 12.0 12.0 3.0 12.0 3.0 12.0 3.0 12.0 3.0 12.0 3.0
NHN 5 6 6 10 8 9 7 12 4 11 13 15 16 18 19 19 19 19 19 19 19	Frequency Amplitude A 259,887 0.001342233 785.193 0.00559045 1304.917 0.000431169 1570.393 0.0002845 2615.213 0.000168053 2090.010 0.000146026 1830.373 0.000144926 2353.577 0.000144926 3136.837 0.0001149263 1045.057 0.000114917 2875.183 0.000103347 525.307 8.9235E-005 3660.437 7.5660E-005 3398.683 0.000032887 3920.427 1.7937E-005 4181.787 0.000014644 4704.697 7.3914E-006 4964.737 5.9707E-006 4964.737 5.9707E-006 4964.737 5.9707E-006 4964.737 3.9828.287 4.982	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 7.70% 6.65% 5.64% 2.45% 0.55% 0.44% Amp Ratio 100.00% 52.78% 49.25% 14.67% 6.90% 3.46% 3.34% 2.70% 1.12% 0.81% 0.55% 0.47%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90 97.78 99.43 69.90 100.93 102.32 103.62 104.81 90.56 101.75	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 35.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71 32.47 43.65	Notes	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.63% 0.65% 0.61% 0.55% 0.57% 1.06% 0.57% 0.57% 0.57% 0.57% 0.57% 0.14% 0.54% 0.57% 0.57% 0.57% 0.54% 0.51% 0.15% 0.99% -1.14% -1.00% -1.15% -1.03% -1.16% -1.03% -1.03% -1.16% -1.09% -1.09% -1.03% -1.10% -1.03% -1.07% -1.03% -1.07% -1.09% -1.09% -1.14% -1.09% -1.14% -1.07% -1.09% -1.15% -1.09% -1.14% -1.07% -1.09% -1.15% -1.09% -1.14% -1.07% -1.09% -1.15% -1.09% -1.14% -1.07% -1.03% -1.15% -1.09% -1.14% -1.07% -1.03% -1.15% -1.09% -1.14% -1.07% -1.03% -1.15% -1.03% -1.14% -1.07% -1.03% -1.15% -1.03% -1.15% -1.03% -1.15% -1.04% -1.04% -1.05%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% 0.18% 0.24% 0.19% 0.24% 0.19% 0.18% 0.24% 0.19% 0.18% 0.18% 0.18% 0.18% 0.18% 0.18% 0.16% 0.16% 0.16% 0.16%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 5.5 0.1 12.0 2.0 3.0 12.0 3.0 12.0 4.0 9.9 12.0 9.9 1.8 3.4 9.9 1.8 3.4 9.9 6.3 7.6 8.8 6.6 5.7
NHN F	Frequency 259.88	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 0.44% 2.45% 0.44% Amp Ratio 100.00% 1.25% 0.44% 1.66% 3.46% 3.34% 2.70% 4.12% 1.12% 1.12% 0.166% 0.47%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 97.78 99.43 69.90 100.93 102.32 103.62 104.81 90.56 101.75	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 35.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71 32.47 43.65	Notes INHARMONIC INHARMONIC	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.53% 0.53% 0.57% 1.06% 0.61% 0.57% 0.57% 0.57% 0.57% 0.57% 0.157% 0.57% 0.15% 0.14% 0.14% 0.10% 0.14% 0.15%	0.00% 0.16% 0.08% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% -0.18% -0.18% -0.18% -0.18% -0.18% -0.18% -0.18% -0.16% -0.13%	11.9 7.0 3.8 7.0 2.0 2.0 12.0 12.0 12.0 12.0 12.0 3.0 12.0 12.0 3.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12
NHN F S S S S S S S S S	Tequency	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 0.44% 0.55% 0.44% Amp Ratio 100.00% 52.78% 49.25% 41.67% 6.90% 4.59% 3.34% 2.70% 6.90% 4.59% 3.48% 3.34% 2.70% 6.90% 4.59% 4.59% 4.59% 4.59% 6.90% 4.59% 6.90% 4.59% 6.90% 4.59% 6.90% 6.90% 4.467% 6.90%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 97.78 99.43 69.90 100.93 102.32 103.62 104.81 90.56 101.75	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.89 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 35.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71 32.47 43.65 Interval from Fundamental 0.00 19.12 27.95 33.75	Notes INHARMONIC INHARMONIC	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.53% 0.65% 0.61% 0.55% 0.57% 0.57% 0.57% 0.57% 0.57% 0.10% -1.14% -1.00% -1.14% -1.00% -1.14% -1.09% -1.15% -1.08% -1.15% -1.09% -1.14% -1.09% -1.14% -1.09% -1.14% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.15% -1.09% -1.57% -1.05%	0.00% 0.16% 0.08% 0.18% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.26% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08% **Sion (Pitch) Pi -0.18% -0.18% -0.18% -0.18% -0.18% -0.16% -0.18% -0.16% -0.17% -0.17%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 12.0 12.0 12.0 12.0 3.0 12.0 12.0 3.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12
NHN 5 6 6 6 6 6 6 6 6 6	Transparency	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 8.56% 7.70% 6.65% 6.65% 0.44% 2.45% 0.44% 1.09% 0.55% 0.44% 2.45% 3.34% 2.70% 6.90% 4.59% 3.48% 3.34% 2.70% 6.90% 4.59% 3.48% 3.34% 2.70% 6.90% 4.59% 3.48% 3.75% 6.90% 1.27% 6.90	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 106.87 107.98 110.02 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 97.78 99.43 69.90 100.93 102.32 103.62 104.81 90.56 101.75	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 35.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71 32.47 43.65	Notes INHARMONIC INHARMONIC	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.62% 0.61% 0.53% 0.53% 0.57% 1.06% 0.57% 0.57% 0.57% 0.57% 0.57% 0.57% 0.157% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.00% -1.14% -1.07% -1.08% -1.08% -1.09% -6.82% 3.71% Diversion (Hz) Diversion (Hz) 0.00% 0.57% 0.55% 0.56% 0.56% 0.56% 0.56% 0.58% 0.58% 0.58%	0.00% 0.16% 0.08% 0.18% 0.13% 0.11% 0.09% 0.11% 0.10% 0.10% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% 0.19% 0.18% 0.19% 0.18% 0.19% 0.18% 0.11% 0.00% 0.13% 0.10% 0.17% 0.10% 0.10%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 12.0 12.0 12.0 5.5 0.1 12.0 2.0 3.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12
NHN 5 6 6 10 8 9 7 12 4 11 13 15 16 18 19 19 10 11 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 12 12 13 14 15 7 7 12 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 13 14 15 7 7 12 15 15 15 15 15 15 15	Tequency	100.00% 41.65% 32.12% 21.20% 12.52% 11.49% 10.72% 8.89% 7.70% 6.65% 5.64% 2.45% 0.55% 0.44% Amp Ratio 100.00% 52.78% 49.25% 14.67% 6.90% 3.46% 3.34% 2.70% 6.90% 4.59% 3.46% 3.44% 0.55% 0.47%	59.88 79.03 87.82 91.03 99.86 95.98 98.03 93.68 103.00 83.98 101.50 72.07 105.68 104.39 110.95 Pitch (MIDI #) 58.10 76.99 85.80 91.62 93.90 95.96 81.90 97.78 99.43 69.90 100.93 100.93 100.93 101.75 Pitch (MIDI #) 55.83 74.95 83.78 89.58 91.92	0.00 19.14 27.94 31.14 39.97 36.09 38.15 33.79 43.12 24.09 41.61 12.18 45.79 44.51 46.98 48.10 50.14 51.07 Interval from Fundamental 0.00 18.89 27.71 33.52 36.80 37.86 23.80 37.86 23.80 39.68 41.33 11.80 42.83 44.22 45.52 46.71 32.47 43.65 Interval from Fundamental 0.00 18.89 11.80 11.	Notes INHARMONIC INHARMONIC	0.00% 0.71% 0.42% 0.71% 0.63% 0.63% 0.63% 0.65% 0.61% 0.55% 0.57% 1.06% 0.57% 0.57% 0.57% 0.54% Diversion (Hz) 0.99% -1.14% -1.00% -1.15% -0.99% -6.82% 3.71% Diversion (Hz) Diversion (Hz) 0.00% -1.75% -0.91% -1.03% -1.14% -1.07% -1.03% -1.14% -1.07% -1.03% -1.14% -1.07% -1.03% -1.14% -1.07% -1.03% -1.15% -1.05% -0.95% -0	0.00% 0.16% 0.08% 0.18% 0.13% 0.11% 0.09% 0.11% 0.10% 0.11% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.17% 0.18% 0.18% 0.18% 0.24% 0.19% 0.18% 0.19% 0.18% 0.18% 0.18% 0.18% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.16% 0.13% 0.13% 0.11% 0.07%	11.9 7.0 3.8 7.0 3.9 12.0 2.0 9.7 7.0 12.0 5.5 0.1 12.0 2.0 3.0 12.0 2.0 3.0 12.0 4.0 9.9 12.0 2.0 9.9 1.8 3.4 9.9 1.8 3.4 9.9 6.3 7.6 8.8 6.6 5.7

				Appendix 2				
2	410.959 9.1375E-006	0.61%	67.82	11.99		-0.05%	-0.01%	7.8
13 14	2576.463 6.5374E-006 2861.210 5.4143E-006	0.43% 0.36%	99.60 101.41	43.77 45.59	INHARMONIC	-3.60% -0.59%	-0.63% -0.10%	3.6 5.4
		0.0070		, , , , , , , , , , , , , , , , , , , ,		5.0577		
Sound 17 Th	hroat – p – low							
NHN 1	Frequency Amplitude 466.732 0.001840253	Amp Ratio 100.00%	Pitch (MIDI #) 70.02	Interval from Fundamental 0.00	Notes	Diversion (Hz) Dive	ersion (Pitch) Pi	titch Class 10.0
3	1401.790 0.00048641	26.43%	89.06	19.04		0.11%	0.02%	5.1
4 6	1866.643 0.000419566 2800.107 0.000320689	22.80%	94.02 101.04	24.00 31.02		-0.02% -0.01%	0.00% 0.00%	10.0
7	3268.670 0.000320689	17.43% 9.48%	101.04	31.02		0.05%	0.00%	5.0 7.7
5	2330.233 0.000173565	9.43%	97.86	27.84		-0.15%	-0.03%	1.9
8 11	3733.450 0.000123588 5135.263 5.3349E-005	6.72% 2.90%	106.02 111.54	36.00 41.52		-0.01% 0.02%	0.00% 0.00%	10.0 3.5
9	4202.177 4.1881E-005	2.28%	108.07	38.05		0.04%	0.01%	0.1
10 12	4668.643 4.1722E-005 5604.883 0.00003506	2.27% 1.91%	109.89 113.05	39.87 43.03		0.03% 0.07%	0.00% 0.01%	1.9 5.1
2	933.460 3.0801E-005	1.67%	82.02	12.00		0.00%	0.00%	10.0
Sound 18 TH		Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Dive	rcion (Bitch)	litch Class
1	525.733 0.00229531	100.00%	72.08	0.00	Notes	0.00%	0.00%	0.1
3 4	1571.720 0.000335624	14.62%	91.04	18.96		-0.35%	-0.07%	7.0 0.0
6	2095.983 0.000157804 3143.723 0.000118867	6.88% 5.18%	96.02 103.04	23.94 30.96		-0.33% -0.34%	-0.06% -0.06%	7.0
7	3667.800 0.000107377	4.68%	105.71	33.63		-0.34%	-0.05%	9.7
8 2	4192.043 5.2897E-005 1047.833 4.8722E-005	2.30% 2.12%	108.02 84.02	35.94 11.94		-0.33% -0.35%	-0.05% -0.07%	0.0
							535333	
	nroat – p – High							
NHN 1	Frequency Amplitude 553.147 0.001891537	Amp Ratio 100.00%	Pitch (MIDI #) 72.96	Interval from Fundamental 0.00	Notes	Diversion (Hz) Dive	ersion (Pitch) Pi 0.00%	ritch Class 1.0
3	1661.240 0.000645279	34.11%	92.00	19.04		0.11%	0.02%	8.0
5 7	2767.483 0.000180339 3875.867 0.000146708	9.53%	100.84 106.67	27.87 33.71		0.06% 0.10%	0.01% 0.02%	4.8 10.7
6	3322.570 0.000135797	7.76% 7.18%	104.00	31.04		0.10%	0.02%	8.0
4	2214.410 9.3957E-005	4.97%	96.98	24.01		0.08%	0.01%	1.0
2 5	1108.127 2.8820E-005 2871.687 0.000008335	1.52% 0.44%	84.99 101.48	12.03 28.51	INHARMONIC	0.17% 3.83%	0.03% 0.65%	1.0 5.5
	nroat – f – low							
NHN 5	Frequency Amplitude 2314.617 0.002950257	Amp Ratio 117.17%	Pitch (MIDI #) 97.74	Interval from Fundamental 27.86	Notes louder than fundamental	Diversion (Hz) Dive	ersion (Pitch) Pi	itch Class
1	462.951 0.002518017	100.00%	69.88	0.00	louder than fundamental	0.00%	0.00%	9.9
3						0.0070		
	1388.753 0.001661387	65.98%	88.90	19.02		-0.01%	0.00%	4.9
7 8	1388.753 0.001661387 3240.640 0.001148121 3703.740 0.001071767							4.9 7.6 9.9
7 8 4	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788	65.98% 45.60% 42.56% 36.45%	88.90 103.57 105.88 93.88	19.02 33.69 36.00 24.00		-0.01% 0.00% 0.00% -0.01%	0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9
7 8 4 6	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159	65.98% 45.60% 42.56% 36.45% 18.79%	88.90 103.57 105.88 93.88 100.90	19.02 33.69 36.00 24.00 31.02		-0.01% 0.00% 0.00% -0.01% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9
7 8 4 6 9 10	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02%	88.90 103.57 105.88 93.88 100.90 107.92 109.74	19.02 33.69 36.00 24.00 31.02 38.04 39.86		-0.01% 0.00% 0.00% -0.01% 0.00% -0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9
7 8 4 6 9 10 14	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69		-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 1.7 7.6
7 8 4 6 9 10 14 11 12	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005	65.98% 45.60% 42.56% 36.45% 18.79% 11.02% 3.98% 3.00% 1.94%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02		-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.05%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -0.01% 0.00%	7.6 9.9 9.9 4.9 11.9 7.6 3.4 4.9
7 8 4 6 9 10 14 11 12 15	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.3003.47114E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88		-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -0.01% 0.00%	7.6 9.9 9.9 4.9 11.9 7.6 3.4 4.9 8.8
7 8 4 6 9 10 14 11 12	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005	65.98% 45.60% 42.56% 36.45% 18.79% 11.02% 3.98% 3.00% 1.94%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02		-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.05%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -0.01% 0.00%	7.6 9.9 9.9 4.9 11.9 7.6 3.4 4.9
7 8 4 6 9 10 14 11 12 15	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03		-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -0.01% 0.00% 0.00%	7.6 9.9 9.9 11.9 1.7 7.6 3.4 4.9 8.8
7 8 4 6 9 10 14 11 12 15	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03		-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% -0.01% 0.00% 0.00%	7.6 9.9 9.9 11.9 1.7 7.6 3.4 4.9 8.8
7 8 4 6 9 10 14 11 12 15 18 17	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005	65.98% 45.60% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 0.72% 0.67%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05	Notes	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.05% -0.01%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.7 7.6 3.4 4.9 8.8 11.9
7 8 4 6 9 10 14 11 12 15 18 17	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03	Notes RESULTS POTENTIALLY	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.7 7.6 3.4 4.9 8.8 11.9
7 8 4 6 9 10 114 11 12 15 18 17 NHN 1 3	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005	65.98% 45.60% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 0.72% 0.67% Amp Ratio 100.00% 48.00%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05	RESULTS POTENTIALLY UNRELIABLE due to	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 77 NHN	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05	RESULTS POTENTIALLY UNRELIABLE due to slight glissando	-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 114 11 12 15 18 17 NHN 1 3 5 7 6 6	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 0.72% 0.67% Amp Ratio 100.00% 48.00% 36.00% 25.24% 20.61%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05	RESULTS POTENTIALLY UNRELIABLE due to	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.05% -0.01% Diversion (Hz) 0.00% -0.68% -0.28% -0.07%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 17 NHN 1 3 5 7 6 4 4	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Proquency** 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.000856977 2096.937 0.000438084	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 1.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 48.00% 25.24% 20.61%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05	RESULTS POTENTIALLY UNRELIABLE due to slight glissando	-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 NHN 1 3 5 7 6 6 4 8 9	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency** 526.997 0.003395417 1578.533 0.01629685 2652.927 0.001222511 3678.770 0.000859877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.00015071	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 48,00% 25,24% 20,61% 12,90% 8,59% 3,39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00	RESULTS POTENTIALLY UNRELIABLE due to slight glissando	-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% 0.00% -0.03% -0.01% 0.00% -0.16% 0.68% -0.28% -0.28% -0.28% -0.42% -0.42% -0.20%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 NHN 1 3 5 7 6 6 4 8 9	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 48.00% 25.24% 20.61% 29.90% 8.59% 3.39% 3.39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.42% -0.25%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 1.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 114 111 122 15 18 17	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency** 526.997 0.003395417 1578.533 0.01629685 2652.927 0.001222511 3678.770 0.000859877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.00015071	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 48,00% 25,24% 20,61% 12,90% 8,59% 3,39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00	RESULTS POTENTIALLY UNRELIABLE due to slight glissando	-0.01% 0.00% 0.00% -0.01% 0.00% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% 0.00% -0.03% -0.01% 0.00% -0.16% 0.68% -0.28% -0.28% -0.28% -0.42% -0.42% -0.20%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 NHN 1 3 5 7 6 6 4 8 9	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Troque f	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 0,67% Amp Ratio 100,00% 48,00% 36,00% 25,24% 20,61% 12,90% 3,39% 0,79%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.20% -0.25% -4.52%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 NHN 1 3 5 7 6 6 4 8 9	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Troque f	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 0,67% Amp Ratio 100,00% 48,00% 36,00% 25,24% 20,61% 12,90% 3,39% 0,79%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.20% -0.25% -4.52%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 14 11 12 15 18 17 Sound 21 77 NHN 1 3 5 7 6 4 8 8 9 2 5 5 5 5 Sound 22 77	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.00020277 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 mroat - f - mid Frequency Amplitude 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.000698877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 36.00% 36.00% 36.00% 35.24% 20.61% 12.90% 8.59% 3.39% 0.79% 0.53%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.20% -0.25% -0.25% -5.56%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 114 111 12 15 18 17 17 18 18 17 17 18 18 17 17 18 18 17 17 18 18 17 18 18 17 18 18 17 18 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Transpiration of the company of the	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,59% 0,59%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% 0.00% -0.03% -0.01% 0.00% -0.08% -0.16% 0.68% -0.28% -0.28% -0.25% -0.42% -0.25% -1.42% -0.25% -1.52% -1.52% -1.556%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
Sound 21 77 8 8 4 6 9 9 10 11 11 12 15 18 17 17 18 13 5 5 7 7 6 6 4 8 8 9 9 2 2 5 5 5 5 18 17 18 13 3 18 17 18 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.00020277 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 mroat - f - mid Frequency Amplitude 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.000698877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 36.00% 36.00% 36.00% 35.24% 20.61% 12.90% 8.59% 3.39% 0.79% 0.53%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.20% -0.25% -0.25% -5.56%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 114 111 122 15 18 17 17 17 18 13 5 5 7 6 4 4 8 8 9 2 5 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5594.967 4.8774E-005 5554.967 4.8774E-005 8330.610 0.000018253 7869.480 1.6870E-005 Amplitude 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0085977 3159.690 0.000438084 4198.210 0.00291771 4733.490 0.000115071 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,79% 0,53%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Osciderable consistency with Sound 21 suggesting reliability of aforementioned	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.28% -0.28% -0.25% -0.42% -0.25% -1.452% 5.56%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9
7 8 4 6 9 10 114 111 122 15 18 17 7 8 18 17 7 8 1 3 5 5 5 5 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.00010237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Moreoff of the company	45.69% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 36.00% 36.00% 25.24% 20.61% 25.24% 20.61% 25.25% 3.39% 0.79% 0.59% 0.59% 0.59%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.28% -0.28% -0.25% -0.42% -0.25% -1.452% 5.56%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 7.1 4.1 9.0 0.1 2.1 0.1 2.1 3.2 4.9
Sound 21 77 8 8 9 9 10 77 8 8 8 9 9 2 5 5 5 8 8 9 9 2 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	3240.640 0.001148121 3703.740 0.00171767 1851.653 0.000917788 27777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005 0003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.00085977 3159.690 0.000291771 4733.490 0.00015071 1051.400 2.6893E-005 2781.563 1.7862E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 1.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 2.90% 8.59% 0.79% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.10% 61.31%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample,	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.00% -0.16% 0.68% -0.28% -0.07% -0.52% -0.42% -0.25% -4.52% 5.56% Diversion (Hz) Diversion (Hz) 0.00% -0.25% -0.25% -0.25% -0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 1.7 7.6 3.4 4.9 8.8 11.9 10.9 0.1 7.1 4.1 9.8 7.1 0.1 3.2 4.9
Sound 21 77 NHN 1 3 3 5 5 5 5 5 5 5 5 6 6 7 8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.00020277 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 ***Transpart	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 12.90% 8.59% 3.39% 0.59% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.10% 15.38% 8.42%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04 24.04	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c	-0.01% 0.00% 0.00% -0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% -0.01% 0.00% -0.03% -0.01% Diversion (Hz) 0.68% -0.28% -0.29% -0.25% -4.52% 5.56%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 7.1 4.1 9.8 7.1 0.0 0.1 2.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 10.3 0.6 0.6
Sound 21 Tr NHN 1 1 3 5 5 5 5 5 5 5 5 5 5 5 5 6 6 7 8 4 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5599.087 7.5429E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005 **Transpart	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 2.90% 8.59% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.10% 60.31% 29.33% 20.10% 5.01% 5.01%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04 24.04 38.08 39.90	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample,	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.16% 0.68% -0.07% -0.28% -0.02% -0.25% -4.52% 5.56% Diversion (Hz) 0.00% 0.33% 0.20% 0.22% 0.22% 0.22% 0.22% 0.22% 0.25% 0.25% 0.25% 0.25% 0.25% 0.22%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 7.1 4.1 9.8 7.1 0.0 0.1 2.1 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 10.3 0.6 2.6 4.4
Sound 21 77 8 4 4 6 9 9 10 11 11 12 15 18 17 7 8 8 9 9 2 5 5 5 9 10 10 11 11 11 12 1	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency 526.997 0.003295417 1578.533 0.001629685 2652.927 0.001222511 1578.533 0.001629685 2652.927 0.001222511 1578.533 0.001629685 2652.927 0.000289877 2096.937 0.000489877 2096.937 0.000489877 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 8,59% 0,53% 0,59% 0,53% Amp Ratio 100,00% 8,59% 12,90% 8,59% 12,90% 8,59% 12,90% 8,59% 12,90% 8,59% 12,90% 12,90% 13,39% 12,90% 15,38% 12,90% 15,38% 16,174% 17,44%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04 24.04 38.08 39.90 41.55	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.16% 0.88% 0.28% 0.22% 0.22% 0.22% 0.25% 0.22% 0.25% 0.25% 0.25% 0.22% 0.25% 0.22% 0.25% 0.25% 0.25% 0.22% 0.25% 0.22% 0.25% 0.22% 0.25% 0.22%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 7.1 4.1 0.0 0.1 2.1 0.1 2.1 0.1 2.1 0.1 0.1 2.1 0.1 6.1 6.1 6.6 6.6 6.6 6.6
Sound 21 77 NHN 1 1 3 5 5 5 5 5 5 5 5 5 5 6 6 7 7 8 8 4 9 9 10 10 11 12 13 13 15 16 16 17 18 18 17 18 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Troat - f - mid** **Frequency** 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.000698877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 12.90% 8.59% 3.39% 0.79% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.10% 48.42% 5.01% 1.96% 1.74% 0.82% 0.38%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09 115.60 116.98	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04 24.04 38.08 39.90	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Output Suppesting Sund 21 suggesting Sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.16% 0.68% -0.07% -0.28% -0.02% -0.25% -4.52% 5.56% Diversion (Hz) 0.00% 0.33% 0.20% 0.22% 0.22% 0.22% 0.22% 0.22% 0.25% 0.25% 0.25% 0.25% 0.25% 0.22%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 9.1 0.0 0.1 2.1 4.1 0.0 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 4.4 10.3 0.6 0.6 2.6 0.6 2.6 4.4 6.1 7.6 9.0
Sound 21 77 8 4 4 6 9 9 10 11 1 1 2 1 3 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.00069877 2096.937 0.000485977 3159.690 0.00069877 2096.937 0.000485097 1051.400 2.6893E-005 25515.817 2.0021E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,59% 0,59% 0,59% 0,59% 0,59% 1,14% 20,43% 20,10% 15,38% 8,42% 1,96% 1,74% 0,82% 0,38% 0,39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.10 105.76 103.13 96.03 108.05 110.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.98 33.74 36.04 24.04 38.08 39.90 41.55 43.06 44.45 29.97	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.03% 0.01% 0.00% 0.16% 0.88% 0.28% 0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 0.0 0.1 2.1 0.1 2.1 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 0.6 0.6 4.4 7.6 9.0 6.5
Sound 21 77 NHN 1 1 3 5 5 5 5 5 5 5 5 5 5 6 6 7 7 8 8 4 9 9 10 10 11 12 13 13 15 16 16 17 18 18 17 18 18 17 18 18 18 18 18 18 18 18 18 18 18 18 18	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Troat - f - mid** **Frequency** 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.000698877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.6893E-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 12.90% 8.59% 3.39% 0.79% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.10% 48.42% 5.01% 1.96% 1.74% 0.82% 0.38%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09 115.60 116.98	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 33.64 44.45	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Output Suppesting Sund 21 suggesting Sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% -0.16% 0.08% -0.16% 0.88% -0.28% -0.28% -0.25% 0.22% 0.22% 0.22% 0.22% 0.25% 0.25% 0.25% 0.25% 0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 9.1 0.0 0.1 2.1 4.1 0.0 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 4.4 10.3 0.6 0.6 2.6 0.6 2.6 4.4 6.1 7.6 9.0
Sound 21 77 8 4 4 6 9 9 10 11 1 1 2 1 3 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5090.087 7.5429E-005 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Trequency 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.00069877 2096.937 0.000485977 3159.690 0.00069877 2096.937 0.000485097 1051.400 2.6893E-005 25515.817 2.0021E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,59% 0,59% 0,59% 0,59% 0,59% 1,14% 20,43% 20,10% 15,38% 8,42% 1,96% 1,74% 0,82% 0,38% 0,39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.10 105.76 103.13 96.03 108.05 110.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.98 33.74 36.04 24.04 38.08 39.90 41.55 43.06 44.45 29.97	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Output Suppesting Sund 21 suggesting Sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.03% 0.01% 0.00% 0.16% 0.88% 0.28% 0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 0.0 0.1 2.1 0.1 2.1 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 0.6 0.6 4.4 7.6 9.0 6.5
Sound 21 77 NHN 1 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.0002275 5554.967 4.8774E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005 ***Tequency** 526.997 0.003395417 1578.533 0.001622685 2652.927 0.001222511 3678.770 0.000859977 3159.690 0.000699877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.68938-005 2515.817 2.0021E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,59% 0,59% 0,59% 0,59% 0,59% 1,14% 20,43% 20,10% 15,38% 8,42% 1,96% 1,74% 0,82% 0,38% 0,39%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.10 105.76 103.13 96.03 108.05 110.13	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.98 33.74 36.04 24.04 38.08 39.90 41.55 43.06 44.45 29.97	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Output Suppesting Sund 21 suggesting Sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.00% 0.03% 0.01% 0.00% 0.16% 0.88% 0.28% 0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 0.0 0.1 2.1 0.1 2.1 0.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 0.6 0.6 4.4 7.6 9.0 6.5
Sound 21 The NHN 1 3 5 5 6 7 7 8 8 4 9 9 10 11 12 13 6 6 7 7 8 8 4 9 9 10 11 12 13 6 6 2 Sound 23 Cheese Control of the NHN 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3240.640 0.001148121 3703.740 0.00171767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5590.087 7.5429E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005 0003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.00085977 3159.690 0.000291771 4733.490 0.00015071 1051.400 2.6893E-005 2781.563 1.7862E-005 000438084 4198.210 0.000291771 4733.490 0.00015071 1051.400 2.6893E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,79% 0,53% Amp Ratio 100,00% 60,31% 29,33% 20,10% 15,38% 8,42% 5,01% 1,96% 1,74% 0,82% 0,38% 0,39% 0,38% 0,38% 0,44% Amp Ratio	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09 115.60 116.98 102.50 84.56	19,02 33,69 36,00 24,00 31,02 38,04 39,86 45,69 41,51 43,02 46,88 50,03 49,05 Interval from Fundamental 0,00 18,99 27,98 33,64 31,01 23,91 35,93 38,00 11,96 27,06 28,80 Interval from Fundamental 0,00 19,08 27,90 31,06 33,74 36,04 24,04 38,08 39,90 41,55 43,06 44,45 29,97 12,02	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC INHARMONIC Output Suppesting Sund 21 suggesting Sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% 0.01% 0.00% 0.00% 0.05% 0.02% 0.28% 0.25% 0.25% 0.22% 0.22% 0.28% 0.25% 0.22% 0.28% 0.25% 0.22% 0.22% 0.28% 0.25% 0.22% 0.22% 0.28% 0.25% 0.25% 0.25% 0.25% 0.22% 0.25% 0.	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 7.1 4.1 4.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 10.3 0.6 0.6 2.6 4.4 6.1 7.6 9.0 6.5 0.6
Sound 21 77 NHN 1 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3240.640 0.001148121 3703.740 0.001071767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.000308022 4629.187 0.000277517 6481.097 0.00020277 5599.087 7.5429E-005 6944.300 3.47114E-005 8330.610 0.000018253 7869.480 1.6870E-005 **Troat - f - mid** *Frequency** 526.997 0.003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.0008569977 3159.690 0.000698877 2096.937 0.000438084 4198.210 0.000291771 4733.490 0.000115071 1051.400 2.68938E-005 2515.817 2.0021E-005 2781.563 1.7862E-005 **Troat - f - high** *Frequency** 539.678 0.00480142 1624.420 0.00289558 2703.800 0.001408373 3245.107 0.000981033 3788.483 0.00965145 4322.8187 0.000480142 4328.187 0.000140837 3245.107 0.000981033 3788.483 0.000965145 4328.187 0.000480142 1624.420 0.00140837 3245.107 0.000981033 3788.483 0.00965145 4329.817 0.0007384 2164.150 0.000404167 4867.727 0.000240504 4329.817 0.000381-005 5950.510 8.3692E-005	65.98% 45.60% 42.56% 36.45% 18.79% 12.23% 11.02% 3.98% 3.00% 1.94% 1.38% 0.72% 0.67% Amp Ratio 100.00% 48.00% 25.24% 20.61% 12.90% 8.59% 0.53% Amp Ratio 100.00% 60.31% 29.33% 20.13% 20.44%	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09 115.60 116.98 102.50 84.56	19.02 33.69 36.00 24.00 31.02 38.04 39.86 45.69 41.51 43.02 46.88 50.03 49.05 Interval from Fundamental 0.00 18.99 27.98 33.64 31.01 23.91 35.93 38.00 11.96 27.06 28.80 Interval from Fundamental 0.00 19.08 27.90 31.06 33.74 36.04 24.04 38.08 39.90 41.55 43.06 44.45 29.97 12.02	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21 INHARMONIC	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.16% 0.88% -0.28% -0.28% -0.25% -4.52% 5.56% Diversion (Hz) 0.00% 0.33% 0.20% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.25%	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 4.1 9.8 7.1 0.0 0.1 2.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 6.1 7.6 10.3 0.6 2.6 4.4 6.1 7.6 9.0 6.5 0.6
Sound 21 The NHN 1 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3240.640 0.001148121 3703.740 0.00171767 1851.653 0.000917788 2777.723 0.000473159 4166.600 0.00038022 4629.187 0.000277517 6481.097 0.000100237 5590.087 7.5429E-005 6944.300 3.47114E-005 8330.610 0.00018253 7869.480 1.6870E-005 0003395417 1578.533 0.001629685 2652.927 0.001222511 3678.770 0.00085977 3159.690 0.000291771 4733.490 0.00015071 1051.400 2.6893E-005 2781.563 1.7862E-005 000438084 4198.210 0.000291771 4733.490 0.00015071 1051.400 2.6893E-005 2781.563 1.7862E-005	65,98% 45,60% 42,56% 36,45% 18,79% 12,23% 11,02% 3,98% 3,00% 1,94% 1,38% 0,72% 0,67% Amp Ratio 100,00% 48,00% 25,24% 20,61% 12,90% 8,59% 0,79% 0,53% Amp Ratio 100,00% 60,31% 29,33% 20,10% 15,38% 8,42% 5,01% 1,96% 1,74% 0,82% 0,38% 0,39% 0,38% 0,38% 0,44% Amp Ratio	88.90 103.57 105.88 93.88 100.90 107.92 109.74 115.57 111.39 112.90 116.76 119.91 118.93 Pitch (MIDI #) 72.12 91.12 100.10 105.76 103.13 96.03 108.05 110.13 84.08 99.19 100.92 Pitch (MIDI #) 72.54 91.61 100.43 103.59 106.27 108.58 96.58 110.61 112.44 114.09 115.60 116.98 102.50 84.56	19,02 33,69 36,00 24,00 31,02 38,04 39,86 45,69 41,51 43,02 46,88 50,03 49,05 Interval from Fundamental 0,00 18,99 27,98 33,64 31,01 23,91 35,93 38,00 11,96 27,06 28,80 Interval from Fundamental 0,00 19,08 27,90 31,06 33,74 36,04 24,04 38,08 39,90 41,55 43,06 44,45 29,97 12,02	RESULTS POTENTIALLY UNRELIABLE due to slight glissando throughout sample INHARMONIC INHARMONIC Notes Considerable consistency with Sound 21 suggesting reliability of aforementioned sound, especially considering Sound 22 is performed a bit flat in the original sample, leading it to be less than 50c away from Sound 21 INHARMONIC	-0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.01% 0.00% 0.01% 0.00% -0.01% 0.00% -0.01% 0.00% -0.05% 0.01% 0.00% 0.00% 0.05% 0.02% 0.28% 0.25% 0.25% 0.22% 0.22% 0.28% 0.25% 0.22% 0.28% 0.25% 0.22% 0.22% 0.28% 0.25% 0.22% 0.22% 0.28% 0.25% 0.25% 0.25% 0.25% 0.22% 0.25% 0.	0.00% 0.00%	7.6 9.9 9.9 4.9 11.9 11.7 7.6 3.4 4.9 8.8 11.9 10.9 Pitch Class 0.1 7.1 4.1 4.1 3.2 4.9 Pitch Class 0.5 7.6 4.4 7.6 10.3 0.6 0.6 2.6 4.4 6.1 7.6 9.0 6.5 0.6

4 5 6 8 7	5261.480 6.4464E-005 7018.400 5.4269E-005	11.53% 6.22% 2.93% 2.46% 1.64%	104.94 108.82 111.96 116.95 114.63	23.97 27.85 30.99 35.98 33.67		-0.15% -0.07% -0.15% -0.11% -0.11%	-0.03% -0.01% -0.02% -0.02% -0.02%	8.9 0.8 4.0 8.9 6.6
NHN 2 3	2084.730 0.00173232 3128.153 0.000860646	Amp Ratio 297.76% 147.93%	Pitch (MIDI #) 95.93 102.96	Interval from Fundamental 11.98 19.00	Notes louder than fundamental louder than fundamental	Diversion (Hz) 0-0.14% -0.11%	-0.03% -0.02%	11.9 7.0
1 4 5 6 7 8	4167.703 0.000529488 5146.967 0.00013112 6252.857 3.0239E-005 7295.727 1.5027E-005	100.00% 91.01% 22.54% 5.20% 2.58% 1.98%	83.96 107.92 111.58 114.95 117.62 119.93	0.00 23.97 27.62 30.99 33.66 35.97		0.00% -0.18% -1.38% -0.16% -0.15% -0.16%	0.00% -0.03% -0.22% -0.02% -0.02% -0.02%	12.0 11.9 3.6 6.9 9.6 11.9
Sound 25	Clarion – f – low Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	hiversion (Pitch)	Ditch Class
1 4 3 3 2 7 7 5 8 6 9 12 10	872.556 0.005310773 3491.860 0.00446389 2619.443 0.00431912 1745.037 0.00210829 6111.437 0.001549113 4364.443 0.00138061 6983.937 0.001085147 5237.227 0.000184535 7856.427 5.8942E-005 10475.733 0.000054402	Amp Ratio 100.00% 84.05% 81.33% 39.70% 29.17% 26.00% 20.43% 3.47% 1.11% 1.02% 0.98%	80.85 104.86 99.88 92.85 114.55 108.72 116.86 111.88 118.90 123.88 120.72	33.70 27.87 36.01 31.03 32.00 33.70 27.87 36.01 31.03 38.05 43.03 39.87	Notes	0.00% 0.05% 0.07% 0.00% 0.06% 0.04% 0.05% 0.04% 0.04%	0.00% 0.01% 0.00% 0.01% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01%	8.9 8.9 3.9 6.6 0.7 8.9 3.9 10.9 3.9 0.7
Sound 26 NHN	Clarion – f – high Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
3 4 1 2 6 7 5 10	3100.760 0.00748689 4134.427 0.00594768 1033.533 0.00535763 2067.160 0.004645903 6199.693 0.00403026 7235.130 0.001074214 5167.800 0.000940628 10336.033 0.000152669 113770.000 7.4708E-005	139.74% 111.01% 100.00% 86.72% 75.22% 20.05% 17.56% 2.85% 1.39%	102.80 107.79 83.78 95.78 114.80 117.47 111.65 123.65 125.30	19.02 24.00 0.00 12.00 31.02 33.69 27.86 39.86 41.51	louder than fundamental louder than fundamental	0.01% 0.01% 0.00% 0.00% -0.02% 0.01% 0.00% 0.01%	0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%	6.8 11.8 11.8 11.8 6.8 9.5 3.6 3.6 5.3
8 6 18 16 6 9 15 8 16	5818.760 5.8684E-005 18223.233 0.000057172 7885.643 5.6593E-005 16156.200 5.6107E-005 5857.177 0.000053995 8919.203 5.3003E-005 15122.500 5.1989E-005 7924.520 4.8011E-005 16193.367 4.3529E-005	1.35% 1.10% 1.07% 1.06% 1.05% 1.01% 0.99% 0.97% 0.90% 0.81% 0.80%	119.79 113.70 133.47 118.96 131.38 113.82 121.10 130.24 119.05 131.42 130.28	36.00 29.92 49.68 35.18 47.60 30.03 37.31 46.45 35.26 47.64 46.49	INHARMONIC inaudible to most adults INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC Possibly a partial as only approximately 15-30c flat	0.01% -6.17% -2.04% -4.63% -2.30% -5.55% -4.11% -2.45% -4.16% -2.08%	0.00% -0.96% -0.27% -0.68% -0.31% -0.86% -0.33% -0.61% -0.28% -0.30%	11.8 5.7 1.5 11.0 11.4 5.8 1.1 10.2 11.0 11.4
9		0.78%	121.17	37.39	INHARMONIC	-3.70%	-0.54%	1.2
Sound 27	Clarion – staccato – Eb	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1 3 4 2 5	628.532 0.001173903 1884.537 0.000181899 2506.043 7.2625E-005 1250.950 2.5158E-005	100.00% 15.50% 6.19% 2.14% 2.09%	75.17 94.18 99.12 87.09 102.95	0.00 19.01 23.94 11.92 27.77		0.00% -0.06% -0.32% -0.49% -0.53%	0.00% -0.01% -0.06% -0.10% -0.09%	3.2 10.2 3.1 3.1 6.9
Sound 28	Clarion – staccato – C	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
2 3 4 1 5 3 3 4 6 4	2083.930 0.002022487 3127.983 0.001554215 4166.450 0.001096716 1033.610 0.000337 5207.843 0.000326778 3039.683 0.00021794 2977.240 0.000109637 4057.020 7.7006E-005 6258.507 6.1278E-005	216.61% 166.46% 117.46% 100.00% 35.00% 23.34% 11.74% 8.25% 6.56% 3.00%	95.92 102.96 107.92 83.79 111.78 102.46 102.10 107.46 114.96 106.97	12.14 19.17 24.13 0.00 28.00 18.67 18.32 23.67 31.18	louder than fundamental louder than fundamental louder than fundamental INHARMONIC INHARMONIC INHARMONIC	0.81% 0.88% 0.77% 0.00% 0.77% -1.97% -3.99% -1.87% 0.92% -4.60%	0.15% 0.15% 0.12% 0.00% 0.12% -0.34% -0.68% -0.30% 0.14%	11.9 7.0 11.9 11.8 3.8 6.5 6.1 11.5 7.0
4	3944.237 2.0037 E-003	3.00%	100.97	23.10	INFIARMONIC	-4.00 /6	-0.7076	11.0
Sound 29 NHN		Amp Ratio	Pitch (MIDI #) 87.19	Interval from Fundamental	Notes	Diversion (Hz) 0.00%	Diversion (Pitch)	
2 3 4 5 7	2513.820 0.001547067 3772.203 0.001003521 5031.457 0.000631161 6291.063 3.0007E-005	37.83% 24.54% 15.43% 0.73% 0.53%	99.17 106.20 111.18 115.05 120.87	11.98 19.00 23.99 27.86 33.68		-0.13% -0.09% -0.05% -0.03% -0.07%	-0.02% -0.01% -0.01% -0.01% 0.00% -0.01%	3.2 3.2 10.2 3.2 7.1 0.9
Sound 30	Clarion – legato – D							
NHN 1 2 3 3 4 5	Frequency Amplitude 1193.403 0.003916963 2381.230 0.001364567 3574.993 0.000790959 4768.987 0.000272053	Amp Ratio 100.00% 34.84% 20.19% 6.95% 0.93%	Pitch (MIDI #) 86.27 98.23 105.27 110.26 114.11	Interval from Fundamental 0.00 11.96 18.99 23.98 27.84	Notes	0.00% -0.23% -0.15% -0.10% -0.15%	Oiversion (Pitch) 0.00% -0.04% -0.02% -0.02% -0.02%	2.3 2.2 9.3 2.3 6.1

	01 : 1 1 0			Appendix 2			
Sound 31 NHN	Clarion – legato – C Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitch Class
2	2099.110 0.00142877	103.78%	96.05	11.99	louder than fundamental	-0.08%	-0.01% 0.1
1 3		100.00% 49.20%	84.06 103.06	0.00 19.00		0.00% -0.12%	0.00% 0.1 -0.02% 7.1
4 5		12.57%	108.04	23.98		-0.14%	-0.02% 0.0
5 6	5 5246.607 4.8936E-005 6293.803 2.9564E-005	3.55% 2.15%	111.91 115.06	27.85 31.00		-0.10% -0.14%	-0.02% 3.9 -0.02% 7.1
8	8391.790 1.0002E-005	0.73%	120.04	35.98		-0.14%	-0.02% 0.0
7	7345.417 9.8948E-006	0.72%	117.74	33.67		-0.10%	-0.01% 9.7
Sound 32 NHN	Clarion – legato – Bb Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitch Class
1		100.00%	82.07	0.00	Notes	0.00%	0.00% 10.1
2		50.69%	94.07	12.00		0.00%	0.00% 10.1
3 4		36.17% 18.27%	101.09 106.06	19.02 23.99		0.01% -0.04%	0.00% 5.1 -0.01% 10.1
4 5	4679.457 5.7685E-005	3.51%	109.93	27.86		-0.03%	-0.01% 1.9
6	5613.743 2.2235E-005	1.35%	113.08	31.01		-0.06%	-0.01% 5.1
0 00							
NHN	Clarion – legato – G Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitch Class
1	784.495 0.002137333	100.00%	79.01	0.00		0.00%	0.00% 7.0
4 3		31.79% 27.14%	102.98 97.99	23.97 18.98		-0.16% -0.22%	-0.03% 7.0 -0.04% 2.0
2		22.07%	90.99	11.98		-0.10%	-0.02% 7.0
5	3915.550 0.000251725	11.78%	106.84	27.83		-0.18%	-0.03% 10.8
6 7 8	4700.210 6.9938E-005 5481.050 4.3366E-005	3.27% 2.03%	110.01 112.67	30.99 33.66		-0.14% -0.19%	-0.02% 2.0 -0.03% 4.7
8	6265.290 2.9679E-005	1.39%	114.98	35.97		-0.17%	-0.03% 7.0
Sound 33 NHN	Clarion – legato – G#	Amn Patia	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (U=) Diversi	sion (Pitch) Pitch Class
1	828.972 0.002547273	Amp Ratio 100.00%	79.97	0.00	Motes	0.00%	0.00% 8.0
3	2487.153 0.000890116	34.94%	98.99	19.02		0.01%	0.00% 3.0
2 4		18.84% 7.52%	91.97 103.97	12.00 24.00		0.00% 0.01%	0.00% 8.0 0.00% 8.0
5	4145.117 0.000148697	5.84%	107.83	27.86		0.01%	0.00% 11.8
6 7 8	4974.193 7.6164E-005 5802.993 3.3927E-005	2.99% 1.33%	110.99 113.65	31.02 33.69		0.01% 0.00%	0.00% 3.0 0.00% 5.7
8	6632.113 1.6443E-005	0.65%	115.97	36.00		0.01%	0.00% 8.0
	Clarion – legato – Eb		D' 1 (MD1 ()		N. A	D: (U) D:	. (0)(1) 0)(1 0)
NHN 1	Frequency Amplitude 624.398 0.00186722	Amp Ratio 100.00%	Pitch (MIDI #) 75.06	Interval from Fundamental 0.00	Notes	0.00%	rsion (Pitch) Pitch Class 0.00% 3.1
3	1872.983 0.000253569	13.58%	94.08	19.02		-0.01%	0.00% 10.1
2 4		6.02% 9.02%	87.06 99.06	12.00 24.00		-0.02% -0.02%	0.00% 3.1 0.00% 3.1
5	3121.973 8.0280E-005	4.30%	102.92	27.86		0.00%	0.00% 6.9
6 7	3746.507 4.4875E-005 4370.837 0.000017006	2.40% 0.91%	106.08 108.75	31.02 33.69		0.00% 0.00%	0.00% 10.1 0.00% 0.7
8	4992.843 1.0032E-005	0.54%					0.0070
			111.05	35.99		-0.05%	-0.01% 3.1
		0.00.70	111.05	35.99		-0.05%	-0.01% 3.1
			111.05	35.99		-0.05%	-0.01% 3.1
	Clarion – staccato – F				Notes		
Sound 35 NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #) 77.05	Interval from Fundamental	Notes		sion (Pitch) Pitch Class
NHN 1 3	Frequency 700.311 0.00262476 2100.577 0.000511364	Amp Ratio 100.00% 19.48%	Pitch (MIDI #) 77.05 96.06	Interval from Fundamental 0.00 19.02	Notes	Diversion (Hz) Diver 0.00% -0.02%	rsion (Pitch) Pitch Class 0.00% 5.0 0.00% 0.1
NHN 1 3 4	Frequency 700.311 0.00262476 0.000511364 2798.920 0.000326418	Amp Ratio 100.00% 19.48% 12.44%	Pitch (MIDI #) 77.05 96.06 101.03	Interval from Fundamental 0.00 19.02 23.99	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08%	sion (Pitch) Pitch Class 0.00% 5.0 0.00% 0.1 -0.01% 5.0
NHN 1 3 4 5 2	Frequency 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 2 1399.650 0.000146844	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99	Notes	0.00% -0.02% -0.08% -0.06% -0.07%	sion (Pitch) Pitch Class 0.00% 5.0 0.00% 0.1 -0.01% 5.0 -0.01% 8.9 -0.01% 5.0
NHN 1 3 4 5 2 6	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 2 1399.650 0.000146484 4199.650 9.1078E-005	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.07% -0.05%	sion (Pitch) Pitch Class 0.00% 5.0 0.00% 0.1 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0
NHN 1 3 4 5 2	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 4199.650 9.1078E-005 4899.820 0.00085858	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99	Notes	0.00% -0.02% -0.08% -0.06% -0.07%	sion (Pitch) Pitch Class 0.00% 5.0 0.00% 0.1 -0.01% 5.0 -0.01% 8.9 -0.01% 5.0
NHN 1 3 4 5 2 6 6 7 7 8 9 9	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 1399.650 0.00146484 4199.650 9.1078E-005 4899.820 0.000085858 5602.223 3.9445E-005 6312.623 1.4337E-005	Amp Ratio 100.00% 19.48% 12.44% 5.59% 3.47% 3.27% 1.50% 0.555%	Pitch (MIDI#) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 2.7 0.00% 5.0 0.00% 5.0
NHN 1 3 4 5 2 6 7 8	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 1399.650 0.00146484 4199.650 9.1078E-005 4899.820 0.00085858 5602.223 3.9445E-005 6312.623 1.4337E-005	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 1.50%	Pitch (MIDI#) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00	Notes	0.00% -0.02% -0.08% -0.06% -0.07% -0.05% -0.05% -0.05%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01 -0.01% 5.0 -0.01% 5.0 -0.01% 0.01% 2.7 -0.01% 5.0 -0.01% 5.0
NHN 1 3 4 5 2 6 6 7 7 8 9 9	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.000146847 1399.650 0.00146484 4199.650 9.1078E-005 4899.820 0.000085858 5602.223 3.9445E-005 6312.623 1.4337E-005	Amp Ratio 100.00% 19.48% 12.44% 5.59% 3.47% 3.27% 1.50% 0.555%	Pitch (MIDI#) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 2.7 0.00% 5.0 0.00% 5.0
NHN 1 3 4 5 5 2 6 7 8 9 10	Frequency Amplitude 700.311 0.00262476 2100.577 0.000511364 2798.920 0.000326418 3499.520 0.00146847 1399.650 9.1078E-005 4899.820 0.000088558 5602.223 3.9445E-005 6312.623 1.4337E-005 7004.440 1.2182E-005	Amp Ratio 100.00% 19.48% 12.44% 5.59% 3.47% 3.27% 1.50% 0.555%	Pitch (MIDI#) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 2.7 0.00% 5.0 0.00% 5.0
NHN 1 3 4 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.01% -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 0.00% 5.0 0.02% 7.1 0.00% 8.9
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 Sound 36 NHN 2	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.46% Amp Ratio 156.86%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87		Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% -0.05% 0.00% 0.16% 0.02%	sion (Pitch) Pitch Class 0.00% 0.00% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.00%
NHN 1 3 4 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.01% -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 0.00% 5.0 0.02% 7.1 0.00% 8.9
NHN 1 3 4 4 5 2 6 6 7 7 8 9 10 Sound 36 NHN 2 1 3 4 4	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.66% 0.00% 0.08% 0.09%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.01% -0.01% 5.0 -0.01% -0.01% -0.01% 2.7 0.00% 5.0 0.02% 7.1 0.00% Sion (Pitch) 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01%
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 10 Sound 36 NHN 2 1 3	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.00%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.00% 5.0 0.02% 7.1 0.00% 8.9 Sion (Pitch) Pitch Class 0.01% 0.01% 0.00% 5.7 0.00% 5.7 0.00% 5.7
NHN 1 3 4 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN 2 1 3 4 6 6 6 1 3 4 6 6 6 1 1 3 4 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.09%	Sion (Pitch) Pitch Class
NHN 1 3 4 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN 2 1 3 4 6 6 6 1 3 4 6 6 6 1 1 3 4 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.09%	Sion (Pitch) Pitch Class
NHN 1 3 4 4 5 2 6 6 7 7 8 9 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.08% 0.09% 0.08% 0.09% 0.08% 0.09%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.7 0.00% 5.0 0.02% 7.1 0.00% 8.9 sion (Pitch) Pitch Class 0.01% 5.7 0.01% 5.7 0.00% 5.7 0.01% 5.7 0.01% 5.7 0.01% 5.7 0.01% 5.7 0.01% 5.7 0.01% 5.7
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 Sound 36 NHN 2 1 3 3 4 6 5 5	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 0.555% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88	Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.00% 0.08% 0.09% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.00% 5.0 0.00% 5.0 0.00% 5.7 0.00% 5.7 0.01% 0.0
NHN 1 3 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37 NHN 1 2	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89% Amp Ratio 100.00% 51.78%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.08% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 0.02% 7.1 0.00% 5.0 0.02% 7.1 0.00% 5.7 0.01% 7.2
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37 NHN 1 2 3 3	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.00% 0.08% 0.09% 0.08% 0.08% Diversion (Hz) Diver 0.06% 0.00% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.11 5.0 0.01% 5.0 0.11% 5.0 0.01% 0.11 0.00% 5.7 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.00% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2 0.01% 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2
NHN 1 3 4 5 5 2 6 6 7 8 9 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37 NHN 1 2	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89% Amp Ratio 100.00% 51.78%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.08% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 0.02% 7.1 0.00% 5.0 0.02% 7.1 0.00% 5.7 0.01% 7.2
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37 NHN 1 2 3 3	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.00% 0.08% 0.09% 0.08% 0.08% Diversion (Hz) Diver 0.06% 0.00% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.11 5.0 0.01% 5.0 0.11% 5.0 0.01% 0.11 0.00% 5.7 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.00% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2 0.01% 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2
NHN 1 3 4 4 5 5 2 6 6 7 8 9 9 10 Sound 36 NHN 2 1 3 3 4 6 5 5 Sound 37 NHN 1 2 3 3 4 4 6 5 5	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 1.50% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03	Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.00% 0.08% 0.09% 0.08% 0.08% Diversion (Hz) Diver 0.06% 0.00% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.11 5.0 0.01% 5.0 0.11% 5.0 0.01% 0.11 0.00% 5.7 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.7 0.01% 0.01% 0.00% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2 0.01% 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 7.2 0.01% 0.01% 7.2
NHN 1 3 4 4 5 5 2 6 6 7 7 8 9 10 10 Sound 36 NHN 2 1 3 3 4 6 5 5 Sound 37 NHN 1 2 3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89% Amp Ratio 100.00% 51.78% 9.70% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03 24.01	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.09% 0.08% 0.08% 0.09% 0.06% 0.08% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.1 0.01% 5.0 0.01% 5.0 0.01% 0.01% 0.00% 5.7 0.00% 5.7 0.01% 0.0
NHN 1 3 4 5 5 2 6 6 7 8 9 10 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 37 NHN 1 2 3 3 4 4 5 5 5 10 10 10 10 10 10 10 10 10 10 10 10 10	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 7.63% 1.00% 0.89% Amp Ratio 100.00% 51.78% 9.70% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03 24.01	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 0.00% 5.7 0.00% 5.7 0.00% 5.7 0.00% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 5.7 0.01% 5.6
NHN 1 3 4 4 5 5 2 6 6 7 8 9 10 10 Sound 36 NHN 2 1 3 3 4 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 6 5 6 7 6 7	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 1.50% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 1.00% 0.89% Amp Ratio 100.00% 51.78% 9.70% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18 Pitch (MIDI #) 101.58 89.59 108.59	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.08% 0.09% 0.08% 0.09% 0.06% 0.08% 0.09% 0.06% 0.08% 0.08% 0.08% 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 0.00% 5.7 0.00% 5.7 0.00% 5.7 0.01% 0.01% 5.7 0.01% 5.6 0.00% 5.6 0.00% 5.6 0.00% 5.6 0.00% 5.6
NHN 1 3 4 5 5 2 6 6 7 8 9 10 10 Sound 36 NHN 2 1 2 3 4 4 6 5 5 5 5 5 5 5 5 5 5 5 5 6 5 6 6 7 10 10 10 10 10 10 10 10 10 10 10 10 10	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.555% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 7.63% 7.63% 9.70% 7.54% Amp Ratio 223.74% 100.00% 57.98%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.74 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18	Interval from Fundamental	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.05%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 0.01% 5.0 0.01% 5.0 0.01% 0.01% 0.01% 0.02% 7.1 0.00% 5.7 0.00% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 5.7 0.01% 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.7 0.01% 0.00% 5.6 0.00% 5.6 0.00% 5.6 0.00% 5.6 0.00% 5.6 0.00% 5.6
NHN 1 3 4 5 5 2 6 6 7 8 9 9 10 10 10 10 10 10 10 10 10 10 10 10 10	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 7.63% 1.00% 0.89% Amp Ratio 23.74% 100.00% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18 Pitch (MIDI #) 101.58 89.59 113.57 117.45 123.27	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03 24.01 Interval from Fundamental 11.99 0.00 19.00 23.98 27.85 33.68	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 0.00% 5.7 0.00% 5.7 0.00% 5.7 0.01% 5.6 0.00%
NHN 1 3 4 5 5 2 6 6 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 1.50% 0.555% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 7.63% 9.70% 7.54% Amp Ratio 223.74% 100.00% 51.78% 9.70% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.74 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18 Pitch (MIDI #) 101.58 89.59 108.59 108.59 113.57 117.45 123.27 120.59	Interval from Fundamental	Notes louder than fundamental Notes Notes louder than fundamental	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.06% 0.08% 0.08% 0.09% 0.08% 0.08% 0.08% 0.05% Diversion (Hz) Diver -0.06% 0.08% 0.08% 0.09% 0.06% 0.08% 0.08% 0.08% 0.08% 0.09% 0.06% 0.08% 0.08% 0.00% -0.10%	Sion (Pitch) Pitch Class 0.00% 0.00% 0.1 -0.01% 5.0 -0.01% 0.1 -0.01% 5.0 -0.01% 0.00% 5.0 -0.01% 0.00% 5.0 -0.01% 0.00% 5.0 -0.01% 0.01% 5.7 -0.01% 0.00% 0
NHN 1 3 4 5 5 2 6 6 7 8 9 9 10 Sound 36 NHN 2 1 3 4 6 5 5 Sound 38 NHN 2 1 3 4 5 5 7 8 9 1 1 1 3 3 4 5 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	Amp Ratio 100.00% 19.48% 12.44% 5.59% 5.58% 3.47% 3.27% 0.55% 0.46% Amp Ratio 156.86% 100.00% 26.68% 7.63% 7.63% 1.00% 0.89% Amp Ratio 23.74% 100.00% 7.54%	Pitch (MIDI #) 77.05 96.06 101.03 104.90 89.03 108.06 110.73 113.05 115.11 116.91 Pitch (MIDI #) 101.71 89.70 108.74 113.72 120.73 117.58 Pitch (MIDI #) 91.17 103.18 110.21 115.18 Pitch (MIDI #) 101.58 89.59 113.57 117.45 123.27	Interval from Fundamental 0.00 19.02 23.99 27.85 11.99 31.01 33.68 36.00 38.07 39.87 Interval from Fundamental 12.01 0.00 19.03 24.02 31.03 27.88 Interval from Fundamental 0.00 12.01 19.03 24.01 Interval from Fundamental 11.99 0.00 19.00 23.98 27.85 33.68	Notes louder than fundamental Notes	Diversion (Hz) Diver 0.00% -0.02% -0.08% -0.06% -0.05% -0.05% 0.00% 0.16% 0.02% Diversion (Hz) Diver 0.08%	sion (Pitch) Pitch Class 0.00% 0.00% 0.01% 5.0 -0.01% 5.0 -0.01% 5.0 -0.01% 5.0 0.00% 5.7 0.00% 5.7 0.00% 5.7 0.01% 5.6 0.00%

				Appendix 2				
10 6	14897.067 6.6463E-005 9094.270 5.6875E-005	0.91% 0.77%	129.98 121.43	40.38 31.84	INHARMONIC INHARMONIC	3.06% 4.86%	0.40% 0.68%	10.0 1.4
U	9034.270 3.0073L-003	0.1170	121.40	31.04	INTERMINATION	4.00 //	0.0070	
Sound 39 A	ltissimo – ff – high Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc	h Class
1 2	1565.627 0.022664667 3135.530 0.0152613	100.00% 67.34%	90.97 103.00	0.00 12.02		0.00% 0.14%	0.00% 0.02%	7.0 7.0
4	6267.177 0.003304533	14.58%	114.99	24.01		0.14%	0.02%	7.0
3	4700.640 0.001464233	6.46%	110.01	19.03		0.08%	0.01%	2.0
5 10	7834.327 0.000126235 15155.267 0.00011285	0.56% 0.50%	118.85 130.27	27.88 39.30	INHARMONIC	0.08% -3.20%	0.01% -0.43%	10.9 10.3
6	8886.403 0.000109464	0.48%	121.03	30.06	INHARMONIC	-5.40%	-0.79%	1.0
10 7	15191.767 8.8770E-005 10454.333 8.6620E-005	0.39% 0.38%	130.32 123.85	39.34 32.87	INHARMONIC INHARMONIC	-2.97% -4.61%	-0.40% -0.66%	10.3 3.8
9	13587.400 8.2890E-005	0.37%	128.38	37.41	INHARMONIC	-3.57%	-0.49%	8.4
	ltissimo – staccato – G#							
NHN 2	3048.020 Amplitude 0.0107649	Amp Ratio 136.47%	Pitch (MIDI #) 102.51	Interval from Fundamental 11.96	Notes louder than fundamental	Diversion (Hz) Diver	-0.04%	h Class 6.5
1	1527.580 0.00788831	100.00%	90.55	0.00	Only average of 2 points	0.00%	0.00%	6.5
3 4	4576.450 0.000993884 6103.700 0.00030022	12.60% 3.81%	109.54 114.53	19.00 23.98	due to noise band at end of staccato sound	-0.14% -0.11%	-0.02% -0.02%	1.5 6.5
2	2788.400 0.000151694	1.92%	100.97	10.42	INHARMONIC	-8.73%	-1.54%	5.0
5 7	7632.270 0.000105474 10680.800 5.2644E-005	1.34% 0.67%	118.40 124.22	27.85 33.67		-0.07% -0.11%	-0.01% -0.02%	10.4 4.2
10	14559.700 4.0423E-005	0.51%	129.58	39.03	INHARMONIC	-4.69%	-0.64%	9.6
6	8462.060 4.0282E-005 9152.560 3.89611E-005	0.51% 0.49%	120.19 121.54	29.64 31.00	INHARMONIC	-7.67% -0.14%	-1.14% -0.02%	0.2 1.5
Sound 41 A	ltissimo – legato – high G#							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
1 2	1599.730 0.009895907 3198.130 0.004785597	100.00% 48.36%	91.35 103.34	0.00 11.99	sample is very flat	0.00% -0.04%	0.00% -0.01%	7.3 7.3
3 4	4795.107 0.000514333	5.20%	110.35	19.00 23.99		-0.09%	-0.01%	2.4
4	6396.007 0.000200063	2.02%	115.34	23.99		-0.05%	-0.01%	7.3
Sound 42 A	Itissimo – legato – G# Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc	h Class
1	828.140 0.002539603	100.00%	79.95	0.00	140(63	0.00%	0.00%	7.9
3 2	2482.737 0.000660361 1656.367 0.0006107	26.00% 24.05%	98.96 91.95	19.01 12.00		-0.07% 0.01%	-0.01% 0.00%	3.0 7.9
4	3307.460 0.000100855	3.97%	103.92	23.97		-0.15%	-0.03%	7.9
5 6	4135.783 2.6213E-005 4963.907 2.1852E-005	1.03% 0.86%	107.79 110.95	27.84 31.00		-0.12% -0.10%	-0.02% -0.02%	11.8 3.0
7	5791.510 1.91138E-005	0.75%	113.62	33.67		-0.09%	-0.01%	5.6
Sound 43 A	Itissimo – legato – Bb							
NHN 1	Frequency Amplitude 932.720 0.001521027	Amp Ratio 100.00%	Pitch (MIDI #) 82.01	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc 0.00%	th Class 10.0
3	2796.403 0.001437883	94.53%	101.02	19.01		-0.06%	-0.01%	5.0
2 4	1863.733 0.00118887 3730.990 0.000551617	78.16% 36.27%	93.99 106.01	11.98 24.00		-0.09% 0.00%	-0.02% 0.00%	10.0 10.0
5	4659.943 5.1115E-005	3.36%	109.86	27.85		-0.08%	-0.01%	1.9
8 7	7455.437 1.8177E-005 6524.570 1.6766E-005	1.20% 1.10%	117.99 115.68	35.99 33.68		-0.08% -0.07%	-0.01% -0.01%	10.0 7.7
NHN A		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch)	
1 2	1043.877 0.002066637 2087.980 0.002048887	100.00% 99.14%	83.96 95.96	0.00 12.00	Through the sample in real time partials 2 & 3	0.00% 0.01%	0.00% Pitc 0.00%	th Class 12.0
3	3131.773 0.00169738	99.14% 82.13%	102.98	19.02	become louder than	0.00%	0.00%	7.0
4 5	4173.887 0.00028276 5217.743 0.000162278	13.68% 7.85%	107.95	23.99 27.86	fundamental, fundamental	-0.04% -0.03%	-0.01% 0.00%	11.9 3.8
6	6259.827 0.000098188	4.75%	111.81 114.97	31.01	actually becomes marginally quieter.	-0.05%	-0.01%	3.8 7.0
7 10	7303.123 0.000018934 10433.100 1.2867E-005	0.92% 0.62%	117.64 123.81	33.68 39.85	·	-0.05% -0.05%	-0.01% -0.01%	9.6 3.8
		5.02.0				5,557,7		
Sound 45 A	Itissimo – legato – C# Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pitc	h Class
1	1105.260 0.0041302	100.00%	84.95	0.00		0.00%	0.00%	0.9
2 3	2210.680 0.003497723 3314.217 0.000407436	84.69% 9.86%	96.95 103.96	12.00 19.01		0.01% -0.05%	0.00% -0.01%	0.9 8.0
4	4421.467 0.000227432	5.51%	108.95	24.00		0.01%	0.00%	0.9
5	5526.937 4.7410E-005	1.15%	112.81	27.87		0.01%	0.00%	4.8
Sound 46 A	Itissimo – legato – D#	Amp Ratio	Ditch (MIDL#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	roion (Ditah)	h Class
2	2473.123 0.007891797	245.97%	Pitch (MIDI #) 98.89	11.98	Notes louder than fundamental	-0.14%	-0.02%	2.9
1 4	1238.247 0.003208427 4945.847 0.000479911	100.00% 14.96%	86.91 110.89	0.00 23.98		0.00% -0.14%	0.00% -0.02%	2.9 2.9
3	3710.303 0.000453161	14.12%	105.91	19.00		-0.12%	-0.02%	9.9
5	6181.140 6.8489E-005	2.13%	114.75	27.83		-0.16%	-0.02%	6.7
Sound 47 A	Itissimo – legato – F Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch)	h Class
1	1379.217 0.006980087	100.00%	88.78	0.00	140(62	0.00%	0.00%	4.8
2 3	2759.983 0.00425684 4144.813 0.000467555	60.99% 6.70%	100.79 107.83	12.01 19.05		0.06% 0.17%	0.01% 0.03%	4.8 11.8
4	5530.767 7.9258E-005	1.14%	112.82	24.04		0.25%	0.04%	4.8
5	6904.693 6.3862E-005	0.91%	116.66	27.88		0.12%	0.02%	8.7

Sound 48	Altissimo - legat	to – G							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
2	3049.907	0.010251223	126.01%	102.52	12.00	louder than fundamental	0.01%	0.00%	6.5
1	1524.860	0.00813495	100.00%	90.52	0.00	sample is very flat	0.00%	0.00%	6.5
3	4556.120	0.00053885	6.62%	109.47	18.95		-0.40%	-0.06%	1.5
4	6098.117	0.000291359	3.58%	114.51	24.00		-0.02%	0.00%	6.5
5	7620.240	9.1065E-005	1.12%	118.37	27.85		-0.05%	-0.01%	10.4
7	10673.200	5.1693E-005	0.64%	124.20	33.69		-0.01%	0.00%	4.2
6	8463.460	4.0958E-005	0.50%	120.19	29.67		-7.49%	-1.11%	0.2
10	14561.033	3.8998E-005	0.48%	129.58	39.06		-4.51%	-0.61%	9.6

Sound 1	Chalumeau – Id	ow – mf			дрених э				
NHN 9	Frequency 555.741	Amplitude 0.0469435	Amp Ratio 171.20%	Pitch (MIDI #) 73.04	Interval from Fundamental 37.65	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Dive -2.21%	rsion (Pitch) -0.53%	Pitch Class 1.0
1	63.147	0.0274204	100.00%	35.39	0.00		0.00%	0.00%	11.4
3 16		0.0246182 0.0183377	89.78% 66.88%	53.91 82.99	18.52 47.59	all partials very flat, especially lower ones, flatness seems to	-2.85% -2.32%	-0.92% -0.49%	5.9 11.0
17	1048.397	0.0178222	65.00%	84.03	48.64	plateau at around 40-45 cents	-2.34%	-0.49%	0.0
18 11		0.01353457 0.01093382	49.36% 39.87%	85.01 76.50	49.62 41.11	interestingly, partials would show	-2.38% -2.33%	-0.49% -0.53%	1.0 4.5
7	431.232	0.0099698	36.36%	68.65	33.26	much less diversion if the	-2.44%	-0.62%	8.7
10 24		0.00894801 0.00801065	32.63% 29.21%	74.80 90.02	39.41 54.62	fundamental was closer to 61.5hz and the partials remained the same	-2.57% -2.26%	-0.60% -0.44%	2.8 6.0
32	1973.853	0.00784798	28.62%	94.99	59.59	and the partials remained the same	-2.32%	-0.43%	11.0
15 36		0.00759957 0.0073631	27.72% 26.85%	81.88 97.01	46.49 61.62		-2.27% -2.38%	-0.48% -0.43%	9.9 1.0
30		0.0073631	25.70%	93.86	58.47		-2.38%	-0.44%	9.9
26 14		0.00696495 0.00686504	25.40% 25.04%	91.37 80.65	55.98 45.26		-2.42% -2.44%	-0.46% -0.53%	7.4 8.7
28	1728.480	0.00663745	24.21%	92.69	57.30		-2.24%	-0.42%	8.7
22 34		0.00594263 0.00586635	21.67% 21.39%	88.50 96.03	53.10 60.64		-2.33% -2.35%	-0.46% -0.43%	4.5 0.0
20	1234.117	0.00558945	20.38%	86.85	51.46		-2.28%	-0.46%	2.9
5 35		0.00547572 0.00488735	19.97% 17.82%	62.96 96.54	27.56 61.15		-1.71% -2.27%	-0.47% -0.41%	3.0 0.5
33	2035.303	0.0045508	16.60%	95.52	60.12		-2.33%	-0.43%	11.5
31 19		0.00416857 0.00404667	15.20% 14.76%	94.44 85.95	59.05 50.56		-2.30% -2.39%	-0.42% -0.49%	10.4 1.9
13	802.992	0.00398479	14.53%	79.41	44.02		-2.18%	-0.48%	7.4
25 29		0.00354968 0.00322337	12.95% 11.76%	90.72 93.27	55.33 57.88		-2.27% -2.36%	-0.44% -0.44%	6.7 9.3
27	1665.460	0.00293059	10.69%	92.04	56.65		-2.32%	-0.44%	8.0
21 23		0.00277418 0.00270066	10.12% 9.85%	87.70 89.26	52.31 53.87		-2.30% -2.35%	-0.46% -0.46%	3.7 5.3
12	739.715	0.00225934	8.24%	77.99	42.60		-2.38%	-0.53%	6.0
8		0.00156245 0.0002935	5.70% 1.07%	71.01 66.01	35.62 30.62		-2.17% -2.29%	-0.53% -0.61%	11.0 6.0
	0.0.101	0.0002000	1.07 70	00.01	00.02		2.20 //	0.0170	0.0
Sound 2 NHN	Chalumeau – h Frequency		Amn Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Dive	rsion (Pitch)	Pitch Class
5	410.168	0.04450977	101.77%	67.78	27.42	LOUDER THAN FUNDAMENTAL	-2.54%	-0.65%	7.8
1 3		0.04373413 0.03132557	100.00% 71.63%	40.37 59.01	0.00 18.65	all partials very flat, especially	0.00% -2.13%	0.00% -0.63%	4.4 11.0
7	573.098	0.01667163	38.12%	73.58	33.21	lower ones, flatness seems to	-2.73%	-0.65%	1.6
13 12		0.01462283 0.00882089	33.44% 20.17%	84.34 83.01	43.97 42.65	plateau at around 40-45 cents Similar to Sound 1	-2.46% -2.13%	-0.51% -0.45%	0.3 11.0
20	1645.960	0.00750487	17.16%	91.84	51.47		-2.23%	-0.42%	7.8
26 15		0.00663691 0.00645817	15.18% 14.77%	96.39 86.88	56.02 46.51		-2.21% -2.14%	-0.40% -0.43%	0.4 2.9
14	1151.500	0.0062309	14.25%	85.66	45.29		-2.28%	-0.46%	1.7
32 16		0.00622614 0.00612339	14.24% 14.00%	99.95 87.95	59.58 47.58		-2.39% -2.40%	-0.42% -0.48%	3.9 3.9
22	1808.850	0.00589196	13.47%	93.47	53.11		-2.32%	-0.43%	9.5
18 30		0.00578231 0.00574608	13.22% 13.14%	89.99 98.84	49.63 58.47		-2.36% -2.34%	-0.46% -0.41%	6.0 2.8
23	1893.013	0.00549015	12.55%	94.26	53.89		-2.22%	-0.41%	10.3
25 24	1971.763	0.00495546 0.00464398	11.33% 10.62%	95.69 94.97	55.32 54.60		-2.30% -2.39%	-0.42% -0.44%	11.7 11.0
34	2797.433	0.00448653	10.26%	101.02	60.66		-2.25%	-0.39%	5.0
11 9		0.00435067 0.00428785	9.95% 9.80%	81.47 78.03	41.10 37.67		-2.33% -2.13%	-0.50% -0.47%	9.5 6.0
31		0.00411755	9.41%	99.42	59.05		-2.27%	-0.40%	3.4
19 28		0.00375046 0.00374729	8.58% 8.57%	90.93 97.66	50.56 57.29		-2.36% -2.28%	-0.45% -0.41%	6.9 1.7
10		0.00367314	8.40%	79.78	39.41		-2.57%	-0.56%	7.8
27 29		0.0031411 0.00284795	7.18% 6.51%	97.01 98.24	56.64 57.87		-2.38% -2.43%	-0.43% -0.43%	1.0 2.2
21		0.00274332	6.27%	92.65	52.28		-2.44%	-0.46%	8.6
8 17		0.00256183	5.86%	75.95 89.02	35.58 48.65		-2.40% -2.27%	-0.55% -0.45%	3.9 5.0
33	2712.913	0.00156366	3.58%	100.49	60.12		-2.33%	-0.40%	4.5
6 2		0.00145701 0.00049758	3.33% 1.14%	71.01 51.82	30.65 11.46		-2.14% -3.10%	-0.52% -1.04%	11.0 3.8
4		0.00028135	0.64%	63.74	23.38		-3.55%	-0.97%	3.7
Sound 3	Chalumeau – Id								
NHN 1	Frequency 63,298	Amplitude 0.00945906	Amp Ratio 100.00%	Pitch (MIDI #) 35.43	Interval from Fundamental 0.00	Notes	Diversion (Hz) Dive 0.00%	rsion (Pitch) 0.00%	Pitch Class 11.4
3	184.510	0.00627556	66.34%	53.95	18.52	all partials very flat, especially	-2.84%	-0.91%	6.0
9		0.0042965 0.00086002	45.42% 9.09%	73.14 68.69	37.71 33.26	lower ones, flatness seems to plateau at around 35-45 cents	-1.89% -2.43%	-0.45% -0.62%	1.1 8.7
11	680.123	0.00080564	8.52%	76.54	41.11	Similar to Sound 1	-2.32%	-0.53%	4.5
5 8		0.00067493 0.00052902	7.14% 5.59%	63.00 71.06	27.56 35.63		-1.72% -2.13%	-0.47% -0.52%	3.0 11.1
15 28	927.593	0.00047071	4.98%	81.91	46.48		-2.30%	-0.49%	9.9
			4.72%	92.75	57.32 39.51		-2.13% -2.04%	-0.40% -0.47%	8.7 2.9
10	1734.577	0.00044499	4.70%	74.94					
10 13	1734.577 620.084 806.612	0.00044499 0.00042822	4.53%	79.49	44.06		-1.98%	-0.43%	7.5
10	3 1734.577 620.084 8 806.612 990.902	0.00044499			44.06 47.62 57.94		-1.98% -2.16% -2.05%		7.5 11.1 9.4
10 13 16 29 14	1734.577 620.084 8 806.612 990.902 1797.980 867.910	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653	4.53% 4.14% 3.20% 3.03%	79.49 83.05 93.37 80.76	47.62 57.94 45.33		-2.16% -2.05% -2.06%	-0.43% -0.45% -0.38% -0.44%	11.1 9.4 8.8
10 13 16 29	3 1734.577 620.084 8 806.612 990.902 1797.980 867.910 1549.827	0.00044499 0.00042822 0.00039126 0.00030271	4.53% 4.14% 3.20%	79.49 83.05 93.37	47.62 57.94		-2.16% -2.05%	-0.43% -0.45% -0.38%	11.1 9.4
10 13 16 29 14 25 17 26	3 1734.577 620.084 8 806.612 990.902 1797.980 8 867.910 6 1549.827 1054.027 1613.297	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00019424	4.53% 4.14% 3.20% 3.03% 2.15% 2.07% 2.05%	79.49 83.05 93.37 80.76 90.80 84.12 91.49	47.62 57.94 45.33 55.37 48.69 56.06		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97%	-0.43% -0.45% -0.38% -0.44% -0.40% -0.42% -0.38%	11.1 9.4 8.8 6.8 0.1 7.5
10 13 16 29 14 25 17	8 1734.577 620.084 806.612 6 990.902 7797.980 1 867.910 5 1549.827 7 1054.027 6 1613.297 247.686	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564	4.53% 4.14% 3.20% 3.03% 2.15% 2.07%	79.49 83.05 93.37 80.76 90.80 84.12	47.62 57.94 45.33 55.37 48.69		-2.16% -2.05% -2.06% -2.06% -2.05%	-0.43% -0.45% -0.38% -0.44% -0.40% -0.42%	11.1 9.4 8.8 6.8 0.1
10 13 16 29 14 25 17 26 4 2	1734.577 620.084 806.612 990.902 1797.980 867.910 5 1549.827 1054.027 6 1613.297 247.686 2 122.713 1858.250	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00019424 0.00016775 0.00016411	4.53% 4.14% 3.20% 3.03% 2.15% 2.07% 2.05% 1.86% 1.77% 1.54%	79.49 83.05 93.37 80.76 90.80 84.12 91.49 59.05 46.89 93.94	47.62 57.94 45.33 55.37 48.69 56.06 23.62 11.46 58.51		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97% -2.17% -3.07% -2.14%	-0.43% -0.45% -0.38% -0.44% -0.40% -0.42% -0.38% -0.64% -1.14% -0.40%	11.1 9.4 8.8 6.8 0.1 7.5 11.1 10.9 9.9
10 13 16 29 14 25 17 26 4 4 2	8 1734,577 620,084 6 806,612 990,902 1797,980 6 867,910 5 1549,827 1054,027 1 1613,297 2 247,686 2 122,713 6 1858,250 6 1858,250	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00019615 0.00016775	4.53% 4.14% 3.20% 3.03% 2.15% 2.07% 2.05% 1.86% 1.77%	79.49 83.05 93.37 80.76 90.80 84.12 91.49 59.05 46.89	47.62 57.94 45.33 55.37 48.69 56.06 23.62 11.46		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97% -2.17% -3.07%	-0.43% -0.45% -0.38% -0.44% -0.42% -0.38% -0.64% -1.14%	11.1 9.4 8.8 6.8 0.1 7.5 11.1
10 13 16 29 14 25 17 26 4 2 2 30 18 12 23	1734.577 620.084 806.612 990.902 1797.980 867.910 51549.827 1054.027 6122.713 1858.250 1117.920 743.132 743.132	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00017615 0.00016775 0.00014611 0.00014432 0.00013613 0.00013042	4.53% 4.14% 3.20% 2.15% 2.07% 2.05% 1.86% 1.77% 1.54% 1.44% 1.38%	79.49 83.05 93.37 80.76 90.80 84.12 91.49 59.05 46.89 93.94 85.14 78.07	47.62 57.94 45.33 55.37 48.69 56.06 23.62 11.46 58.51 49.71 42.64 53.92		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97% -2.17% -3.07% -2.14% -1.88% -2.16% -2.09%	-0.43% -0.45% -0.38% -0.44% -0.40% -0.42% -0.66% -1.14% -0.40% -0.38% -0.48% -0.41%	11.1 9.4 8.8 6.8 0.1 7.5 11.1 10.9 9.9 1.1 6.1 5.4
10 13 16 29 14 25 17 26 4 4 2 30 18 18	1734.577 620.084 806.612 990.902 1797.980 867.910 51549.827 1054.027 1613.297 247.686 2 122.713 1858.250 1117.920 2 743.132 1425.493 1487.013 374.507 6	0.00044499 0.00044892 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00017645 0.00016775 0.00014611 0.0001430 0.00013042 0.00013042 0.00013042 0.00012196	4.53% 4.14% 3.20% 3.03% 2.15% 2.07% 2.05% 1.77% 1.54% 1.53% 1.44% 1.38% 0.70%	79.49 83.05 93.37 80.76 90.80 84.12 91.49 59.05 46.89 93.94 85.14 78.07	47.62 57.94 45.33 55.37 48.69 56.06 23.62 11.46 58.51 49.71 42.64 53.92 54.65 30.78		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97% -2.17% -3.07% -2.14% -1.88% -2.16%	-0.43% -0.45% -0.38% -0.44% -0.40% -0.42% -0.38% -0.64% -1.14% -0.40% -0.38% -0.48%	11.1 9.4 8.8 6.8 0.1 7.5 11.1 10.9 9.9 1.1 6.1
10 13 16 29 14 25 17 26 4 2 30 18 12 23	1734.577 620.084 806.612 990.902 1797.980 867.910 51549.827 1054.027 1613.297 247.686 2 122.713 1858.250 1117.920 2 743.132 1425.493 1487.013 374.507 6	0.00044499 0.00042822 0.00039126 0.00030271 0.00028653 0.00020329 0.00019564 0.00019424 0.00016775 0.00014611 0.00014432 0.00013613 0.00013613 0.00013042 0.00012196	4.53% 4.14% 3.20% 3.03% 2.15% 2.07% 2.05% 1.86% 1.77% 1.54% 1.53% 1.44%	79.49 83.05 93.37 80.76 90.80 84.12 91.49 59.05 46.89 93.94 85.14 78.07 89.35 90.08	47.62 57.94 45.33 55.37 48.69 56.06 23.62 11.46 58.51 49.71 42.64 53.92 54.65		-2.16% -2.05% -2.06% -2.06% -2.05% -1.97% -2.17% -3.07% -2.14% -1.88% -2.16% -2.09% -2.12%	-0.43% -0.45% -0.38% -0.44% -0.42% -0.38% -0.64% -1.14% -0.40% -0.38% -0.41% -0.41%	11.1 9.4 8.8 6.8 0.1 7.5 11.1 10.9 9.9 1.1 6.1 5.4

Sound 4 Cha	alumeau – hig	ıh – pp							
NHN Fr	requency A	mplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	84.517 (0.0136993	100.00%	40.44	0.00		0.00%	0.00%	4.4
3	248.127 0 .	.00511855	37.36%	59.08	18.65	all partials very flat, as in Sound 1	-2.14%	-0.63%	11.1
5	413.527 0 .	.00379592	27.71%	67.93	27.49		-2.14%	-0.55%	7.9
7	580.772 0 .	.00137599	10.04%	73.81	33.37		-1.83%	-0.43%	1.8
2	163.669 0 .	.00045831	3.35%	51.88	11.44		-3.17%	-1.07%	3.9
9	744.359 0 .	.00036026	2.63%	78.10	37.66		-2.14%	-0.48%	6.1
6	496.273 0 .	.00024467	1.79%	71.08	30.65		-2.14%	-0.52%	11.1
4	332.668 0 .	.00024063	1.76%	64.16	23.72		-1.60%	-0.43%	4.2
8	665.154 0 .	.00015446	1.13%	76.15	35.72		-1.62%	-0.37%	4.2
11	913.357 0 .	.00014481	1.06%	81.64	41.21		-1.76%	-0.37%	9.6
13	1077.660 0 .	.00012085	0.88%	84.51	44.07		-1.92%	-0.40%	0.5
10	828.938 0 .	.00012074	0.88%	79.97	39.53		-1.92%	-0.42%	8.0

Sound 5	Chalumeau - I	low – ff							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
9	550.075	0.07026387	197.17%	72.87	37.54	LOUDER THAN FUNDAMENTAL	-2.85%	-0.68%	0.9
17	1040.797	0.04228653	118.66%	83.91	48.58	LOUDER THAN FUNDAMENTAL	-2.68%		
1	62.911	0.03563643	100.00%	35.33	0.00		0.00%		11.3
3		0.03140787	88.13%	53.85	18.52	all partials very flat, as in Sound 1	-2.85%		5.8
16			82.87%	82.86	47.53		-2.67%		
18			72.53%	84.89	49.57	flatness of partials seems to increase			
15		0.0197036	55.29%	81.74	46.42	slightly with loudness	-2.66%		9.7
24			50.38%	89.87	54.54		-2.73%		5.9
7			40.56%	68.59	33.26		-2.45%		
20		0.0117737	33.04%	86.71	51.39		-2.71%		2.7
11		0.0114518	32.14%	76.38	41.06		-2.60%		
22		0.01118003	31.37%	88.36	53.04		-2.72%		4.4
26			29.80%	91.27	55.94		-2.63%		7.3
19		0.00978742	27.46%	85.83	50.50		-2.71%		
5		0.00873829	24.52%	62.69	27.36		-2.84%		2.7
14		0.00871592	24.46%	80.55	45.23		-2.63%		
35		0.00840357	23.58%	96.42	61.09		-2.61%		
13		0.00820738	23.03%	79.27	43.94		-2.63%		
10		0.00815466	22.88%	74.74	39.42		-2.55%		
32			21.51%	94.87	59.55		-2.58%		
34		0.00724937	20.34%	95.91	60.58		-2.68%		11.9
33		0.00661517	18.56%	95.39	60.06		-2.68%		11.4
21		0.00626306	17.57%	87.56	52.23		-2.72%		3.6
29		0.00544532	15.28%	93.16	57.83		-2.66%		
31		0.00512999	14.40%	94.31	58.98		-2.67%		
25		0.00511828	14.36%	90.59	55.27		-2.62%		
27		0.00475506	13.34%	91.92	56.59		-2.65%		7.9
28		0.00450063	12.63%	92.55	57.22		-2.66%		
30		0.00390122	10.95%	93.74	58.41		-2.67%		
23		0.00321711	9.03%	89.15	53.83		-2.60%		
12		0.00259579	7.28%	77.85	42.52		-2.84%		
8		0.00161999	4.55%	70.81	35.49		-2.92%		
6		0.00138762	3.89%		30.53		-2.81%		
2	120.612	0.00110424	3.10%	46.59	11.27		-4.14%	-1.55%	10.6

Sound 6	Chalumeau -	high – ff							
NHN	Frequency		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes		Diversion (Pitch)	Pitch Class
5		0.05475277	104.68%		27.42	LOUDER THAN FUNDAMENTAL	-2.55%	-0.66%	
1		0.05230283	100.00%	40.35	0.00		0.00%	0.00%	
3			71.35%	59.00	18.65	all partials very flat, as in Sound 1	-2.13%	-0.63%	
13			38.97%	84.32	43.97		-2.46%	-0.51%	0.3
7		0.01508687	28.85%	73.56	33.21		-2.73%	-0.65%	
36		0.01395323	26.68%	101.96	61.61		-2.43%	-0.42%	6.0
20			25.96%	91.78	51.43		-2.45%	-0.47%	7.8
26			21.97%	96.32	55.97		-2.46%	-0.45%	0.3
19		0.01077477	20.60%	90.91	50.56		-2.36%	-0.45%	
11		0.01068893	20.44%	81.46	41.11		-2.32%	-0.50%	
32		0.00992031	18.97%	99.93	59.58		-2.40%	-0.42%	3.9
23			18.15%	94.19	53.84		-2.50%	-0.46%	
22		0.009263	17.71%	93.46	53.11		-2.32%	-0.43%	9.5
18			16.67%	89.95	49.60		-2.49%	-0.48%	6.0
25			15.09%	95.66	55.31		-2.39%	-0.44%	11.7
12		0.00769154	14.71%	82.90	42.55		-2.67%	-0.56%	
31		0.00744727	14.24%	99.37	59.02		-2.48%	-0.43%	3.4
34		0.00733187	14.02%	100.97	60.62		-2.45%	-0.42%	5.0
30			13.71%	98.81	58.46		-2.41%	-0.43%	2.8
24		0.00668882	12.79%	94.95	54.60		-2.40%	-0.44%	10.9
28		0.00651673	12.46%	97.61	57.26		-2.43%	-0.44%	1.6
27		0.00621099	11.88%	96.99	56.64		-2.37%	-0.43%	1.0
35			11.75%	101.49	61.14		-2.38%	-0.41%	5.5
9		0.00606789	11.60%	78.02	37.67		-2.13%	-0.48%	
14			10.28%	85.64	45.29		-2.26%	-0.46%	
21			9.94%	92.63	52.28		-2.45%	-0.46%	
15		0.00496609 0.00440452	9.49% 8.42%	86.78	46.43 47.58		-2.58% -2.40%	-0.52% -0.48%	2.8 3.9
16			7.97%	87.93			-2.40% -2.43%		3.9
29 10			7.97% 7.26%	98.22 79.76	57.87 39.41		-2.43% -2.56%	-0.43% -0.56%	2.2 7.8
33		0.00379691	7.26%	100.46	39.41 60.11		-2.39%	-0.42%	7.8 4.5
8		0.00376282	6.41%	75.93	35.58		-2.39% -2.39%	-0.42% -0.55%	
17			5.18%	75.93 88.99	35.58 48.64		-2.39% -2.36%	-0.55% -0.46%	
17			4.61%	71.00	48.64 30.65		-2.36% -2.14%	-0.46%	
6	493.749	0.0024133	4.61%	71.00	30.05		-2.14%	-0.52%	11.0

Sound 7	Chalumeau -	Staccato – Bb)						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) I	Diversion (Pitch)	Pitch Class
10	574.085	0.03336557	112.93%	73.61	40.19	LOUDER THAN FUNDAMENTAL	1.88%	0.44%	1.6
1	56.350	0.02954447	100.00%	33.42	0.00		0.00%	0.00%	9.4
8	471.127	0.01227273	41.54%	70.18	36.76	diversion is much more sporadic	4.51%	1.10%	10.2
17	933.491	0.01174398	39.75%	82.02	48.60		-2.55%	-0.54%	10.0
7	405.597	0.01128531	38.20%	67.59	34.17		2.83%	0.72%	7.6
19	1051.027	0.01094409	37.04%	84.07	50.65		-1.83%	-0.38%	0.1
3	173.133	0.01033503	34.98%	52.85	19.43		2.42%	0.79%	4.9
9	523.990	0.00987801	33.43%	72.02	38.60		3.32%	0.79%	0.0
15	869.325	0.00925179	31.31%	80.79	47.37		2.85%	0.61%	8.8
14	813.343	0.00785431	26.58%	79.64	46.22		3.10%	0.67%	7.6
18	1002.703	0.00647342	21.91%	83.26	49.84		-1.14%	-0.24%	11.3

12	653,231 0.00610787	20.67%	75.84	42.42	-3.40%	-0.78%	3.8
21	1165.887 0.00521438						
		17.65%	85.87	52.45	-1.48%	-0.30%	1.9
28	1584.500 0.00407796	13.80%	91.18	57.76	0.42%	0.08%	7.2
13	752.265 0.00393894	13.33%	78.28	44.87	2.69%	0.59%	6.3
29	1650.590 0.00389284	13.18%	91.89	58.47	1.01%	0.19%	7.9
30	1718.650 0.00383339	12.97%	92.59	59.17	1.67%	0.31%	8.6
31	1768.100 0.0036697	12.42%	93.08	59.66	1.22%	0.23%	9.1
6	354.171 0.00338149	11.45%	65.24	31.82	4.75%	1.25%	5.2
5	284.393 0.00324251	10.98%	61.44	28.02	0.94%	0.26%	1.4
33	1844.830 0.003209	10.86%	93.81	60.40	-0.79%	-0.15%	9.8
38	2133.397 0.00287784	9.74%	96.33	62.91	-0.37%	-0.07%	0.3
4	235.314 0.00268204	9.08%	58.17	24.75	4.40%	1.30%	10.2
36	2019.810 0.00267599	9.06%	95.38	61.96	-0.43%	-0.08%	11.4
35	1948.320 0.00266281	9.01%	94.76	61.34	-1.21%	-0.22%	10.8
26	1467.647 0.00255172	8.64%	89.86	56.44	0.17%	0.03%	5.9
23	1303.273 0.00244222	8.27%	87.80	54.38	0.56%	0.11%	3.8
22	1233.790 0.0024271	8.22%	86.85	53.43	-0.48%	-0.10%	2.9
24	1350.227 0.00220591	7.47%	88.41	54.99	-0.16%	-0.03%	4.4
37	2066.163 0.00214024	7.24%	95.78	62.36	-0.90%	-0.16%	11.8
34	1902.213 0.00207734	7.03%	94.35	60.93	-0.71%	-0.13%	10.3
25	1420.310 0.00206158	6.98%	89.29	55.87	0.82%	0.16%	5.3

Sound 8	Chalumeau -	Staccato – F							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1		0.05988177	100.00%	40.84	0.00		0.00%		4.8
5		0.0436589	72.91%	68.70	27.85	considerably less diversion than	-0.06%	-0.02%	8.7
3	259.590	0.04133383	69.03%	59.86	19.02	previous samples, most partials are	0.01%		11.9
12		0.01703653	28.45%	83.92	43.07	slightly sharp	0.30%		11.9
7		0.01399673	23.37%	74.63	33.79		0.58%		2.6
18		0.01355327	22.63%	90.95	50.11		0.41%		7.0
34			19.97%	101.96	61.12		0.39%		6.0
13		0.01034113	17.27%	85.29	44.45		0.25%		1.3
28		0.00982836	16.41%	98.59	57.74		0.32%		2.6
26		0.00975463	16.29%	97.31	56.47		0.36%		1.3
11		0.00968862	16.18%	82.43	41.59		0.45%		10.4
24		0.00934504	15.61%	95.93	55.09		0.39%		11.9
20		0.00914544	15.27%	92.79	51.95		0.50%		8.8
9		0.00899377	15.02%	78.97	38.13		0.51%		7.0
25			14.73%	96.64	55.80		0.40%		0.6
30		0.00877601	14.66%	99.77	58.93		0.27%		3.8
10		0.00849796	14.19%	80.78	39.93		0.40%		8.8
32		0.00844086	14.10%	100.92	60.08		0.45%		4.9
22		0.00828128	13.83%	94.43	53.59		0.45%		10.4
33		0.00759452	12.68%	101.45	60.61		0.42%		5.4
17		0.00670644	11.20%	89.97	49.13		0.46%		6.0
14		0.00664255	11.09%	86.58	45.74		0.28%		2.6
35		0.00635506	10.61%	102.46	61.62		0.39%		6.5
21		0.00602125	10.06%	93.61	52.77		0.35%		9.6
19		0.00572238	9.56%	91.92	51.07		0.57%		7.9 3.2
29		0.00513247	8.57%	99.19	58.35		0.30%		
31 16		0.00507595	8.48%	100.37	59.53		0.47%		4.4
27			7.44% 7.38%	88.91 98.03	48.07 57.19		0.38% 0.76%		4.9 2.0
6		0.0044163	7.36%	71.98	31.13		0.76%		12.0
23		0.00436442	7.29%	95.21	54.36		0.46%		11.2
8		0.00435614	7.21%	76.94	36.10		0.46%		4.9
2		0.00424128	2.84%	52.79	11.95		-0.29%		4.9
4		0.00170097	2.11%	65.08	24.23		1.36%		5.1
15		0.00120574	1.95%	87.80	46.96		0.45%		3.8
10	1303.093	0.00110304	1.95%	07.00	40.90		0.45%	0.09%	5.0

Sound 9	Chalumeau - Leg	gato – Bb							
NHN			Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	
1	56.304 0.		100.00%	33.41	0.00		0.00%		9.4
10			70.73%	74.08	40.67	all partials incredibly sharp, especially		1.10%	2.1
7	410.333 0 .		60.75%	67.79	34.39	lower ones, sharpness seems to	4.11%	1.04%	7.8
3			55.36%	52.97	19.56	plateau at around 75-85 cents	3.20%		5.0
8			38.47%	70.21	36.81		4.78%		10.2
9			33.48%	72.17	38.76	interestingly, partials would show	4.26%	1.01%	0.2
5			28.04%	61.92	28.51	much less diversion if the	3.84%		1.9
16			22.93%	82.12	48.71	fundamental was closer to 59hz	4.20%		10.1
18			19.71%	84.16	50.76	and the partials remained the same	4.24%		0.2
14			18.50%	79.79	46.39		4.11%		7.8
12			16.81%	77.24	43.83	Fundamental is itself closer to A, but	4.79%		5.2
20			13.24%	85.99	52.59	perceived pitch is still Bb due to partials	4.27%	0.85%	2.0
26			11.65%	90.56	57.15		4.40%	0.83%	6.6
11		0.0030432	11.48%	75.65	42.25		4.33%		3.7
28		.00284868	10.75%	91.84	58.44		4.42%	0.82%	7.8
30		0.0027269	10.29%	93.04	59.64		4.45%	0.82%	9.0
17			8.62%	83.22	49.82		4.53%		11.2
22		0.0019653	7.42%	87.65	54.24		4.31%		3.6
34			6.88%	95.22	61.81		4.50%		11.2
32			6.69%	94.16	60.76		4.47%		10.2
15			6.49%	81.03	47.63		4.39%		9.0
24			6.01%	89.16	55.76		4.36%		5.2
29			5.56%	92.46	59.05		4.47%		8.5 5.2 7.2 1.2
6			5.16%	65.24	31.83		4.81%		5.2
27			4.89%	91.20	57.80		4.35%		7.2
19			4.36%	85.16	51.75		4.61%		1.2
23			3.88%	88.48	55.07		4.68%		4.5
31			3.76%	93.63	60.22		4.56%		9.6
4			3.06%	58.22	24.82		4.83%		10.2
33			2.89%	94.71	61.30		4.55%		10.7
35			2.60%	95.70	62.30		4.39%		11.7
13			2.52%	78.54	45.13		4.28%	0.93%	6.5
21	1237.893 0.	.00052859	1.99%	86.91	53.50		4.69%	0.92%	2.9

Sound 10	Chalumeau -	Legato – C							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	65.422	0.01755633	100.00%	36.00	0.00		0.00%	0.00%	0.0
3	196.274	0.01303123	74.23%	55.02	19.02	most partials very sharp	0.00%	0.00%	7.0
9	594.089	0.00859096	48.93%	74.20	38.19		0.90%	0.21%	2.2
24	1591.357	0.00786216	44.78%	91.26	55.25		1.35%	0.26%	7.3
7	463.165	0.0071347	40.64%	69.89	33.88		1.14%	0.28%	9.9

15	991.886 0.00636	36.27%	83.07	47.07	1.08%	0.22%	11.1
26	1722.313 0.00569	9318 32.43%	92.63	56.62	1.25%	0.23%	8.6
22	1455.217 0.00464	1761 26.47%	89.71	53.70	1.11%	0.21%	5.7
5	332.460 0.0042	2816 24.39%	64.15	28.14	1.63%	0.44%	4.1
13	861.148 0.00419	23.88%	80.63	44.62	1.25%	0.27%	8.6
32	2120.183 0.003			60.22	1.27%	0.23%	0.2
14	926.647 0.0033			45.89	1.17%	0.25%	9.9
30	1989.373 0.0033			59.12	1.36%	0.25%	11.1
28	1853.143 0.0033			57.89	1.16%	0.21%	9.9
16	1057.530 0.00318			48.18	1.03%	0.21%	0.2
20	1324.157 0.0030			52.07	1.20%	0.24%	4.1
12	795.778 0.0023			43.25	1.36%	0.30%	7.3
19	1259.300 0.00219			51.20	1.31%	0.26%	3.2
11	730.242 0.0020			41.77	1.47%	0.33%	5.8
8	528.880 0.00189			36.18	1.05%	0.25%	0.2
21	1390.057 0.00184			52.91	1.18%	0.23%	4.9
17	1126.450 0.00170			49.27	1.28%	0.26%	1.3
25	1657.470 0.00146			55.96	1.34%	0.25%	8.0
18	1193.563 0.001			50.27	1.36%	0.27%	2.3
10	665.046 0.0010			40.15	1.65%	0.37%	4.2
33	2186.360 0.0010			60.75	1.27%	0.23%	8.0
23	1525.037 0.00098			54.51	1.35%	0.26%	6.5
29	1917.770 0.00094			58.48	1.08%	0.20%	10.5
31	2055.417 0.00093			59.68	1.35%	0.24%	11.7
27	1786.563 0.0008			57.26	1.14%	0.21%	9.3
6	398.132 0.00036			31.26	1.43%	0.37%	7.3
4	267.329 0.0002			24.37	2.16%	0.62%	0.4
2	129.753 0.00019	9277 1.10%	47.86	11.85	-0.83%	-0.30%	11.9

	Chalumeau -	Legato – D							
NHN	Frequency		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes		Diversion (Pitch)	Pitch Class
1		0.02063807	100.00%	38.15	0.00		0.00%		2.2
7		0.01714287	83.06%	71.48	33.33	all partials very flat	-2.06%		11.5
3		0.01134563	54.97%	56.75	18.60		-2.41%		8.8
22		0.01002921	48.60%	91.38	53.23		-1.63%		7.4
5		0.00998166	48.37%	65.76	27.61		-1.44%		5.8
24		0.00744674	36.08%	92.86	54.71		-1.80%		8.9
9		0.00683995	33.14%	75.91	37.76		-1.60%		3.9
15		0.00563457	27.30%	84.70	46.55		-1.92%		0.7
30		0.00549492	26.63%	96.74	58.59		-1.68%		0.7
21		0.00518701	25.13%	90.56	52.41		-1.70%		6.6
28		0.00504062	24.42%	95.53	57.37		-1.80%		11.5
34		0.00455718	22.08%	98.91	60.75		-1.69%		2.9
26		0.00427849	20.73%	94.27	56.12		-1.66%		10.3
14		0.00375249	18.18%	83.57	45.42		-1.54%		11.6
20		0.00373973	18.12%	89.70	51.55		-1.80%		5.7
23		0.00341414	16.54%	92.13	53.98		-1.76%		8.1
18		0.00301809	14.62%	87.91	49.76		-1.60%		3.9
32		0.00288466	13.98%	97.84	59.69		-1.80%		1.8
11		0.00267828	12.98%	79.33	41.17		-1.95%		7.3
10		0.00260702	12.63%	77.77	39.61		-1.43%		5.8
16		0.00254929	12.35%	85.84	47.69		-1.79%		1.8
17		0.00253408	12.28%	86.91	48.76		-1.69%		2.9
27		0.00236547	11.46%	94.92	56.77		-1.68%		10.9
33		0.00215666	10.45%	98.38	60.23		-1.73%		2.4
35		0.00213492	10.34%	99.42	61.27		-1.63%		3.4
31		0.00208398	10.10%	97.32	59.17		-1.61%		1.3
13		0.00207018	10.03%	82.27	44.12		-1.66%		10.3
29		0.00206867	10.02%	96.15	57.99 50.67		-1.73%		0.1
19		0.00201355	9.76%	88.82	50.67		-1.74%		4.8 1.8
8		0.00150584	7.30%	73.84	35.68		-1.80%		
12 25		0.00123459 0.00062238	5.98%	80.86	42.71 55.42		-1.80% -1.73%		8.9 9.6
25			3.02%	93.58					
4		0.00045286 0.00038907	2.19% 1.89%	68.97 61.84	30.81 23.69		-1.19% -1.76%		9.0 1.8
2				49.96	23.69				2.0
	146.492	0.00026805	1.30%	49.96	11.81		-1.11%	-0.39%	2.0

Sour	nd 12	Chalumeau -	Legato – Eb							
N	HN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes		Diversion (Pitch)	
	1		0.02678767	100.00%		0.00		0.00%	0.00%	
	7	540.888	0.0200556	74.87%	72.57	33.86	all partials very sharp	1.02%	0.24%	
	5	387.882		61.16%	66.82	28.11	similar to Sound 9	1.42%	0.37%	
	3			51.73%	58.14	19.42		2.37%	0.70%	
	13			35.75%	83.40	44.69		1.66%	0.34%	
	20	1551.757		26.22%	90.82	52.11		1.43%	0.27%	
	22		0.00500798	18.70%	92.50	53.79		1.62%	0.30%	
	9			17.75%	77.02	38.31		1.56%	0.35%	
	24		0.00443752	16.57%	93.99	55.28		1.49%	0.27%	
	26		0.00417405	15.58%	95.40	56.69		1.65%	0.30%	
	28		0.00400238	14.94%	96.66	57.95		1.53%	0.27%	
	15		0.00392605	14.66%	85.84	47.13		1.44%	0.29%	
	32		0.00376364	14.05%		60.27		1.56%	0.27%	
	14	1087.567		12.33%	84.67	45.96		1.56%	0.32%	
	23		0.00305484	11.40%		54.55		1.57%	0.29%	
	18		0.00300787	11.23%	89.02	50.31		1.58%	0.31%	
	8		0.00289574	10.81%	75.02	36.31		1.80%	0.41%	
	21	1634.267		10.22%	91.72	53.01		1.74%	0.33%	
	34	2638.997		9.61%	100.01	61.30		1.47%	0.25%	
	11			8.80%	80.45	41.74		1.31%	0.28%	
	17	1322.187		7.89%	88.05	49.34		1.68%	0.33%	
	30		0.00207354	7.74%	97.84	59.13		1.43%	0.25%	
	31		0.00205376	7.67%	98.44	59.73		1.62%	0.28%	2.4
	33		0.00189712	7.08%	99.51	60.79		1.53%	0.26%	
	29 27		0.00176254 0.00162059	6.58% 6.05%	97.26 96.05	58.55 57.34		1.50% 1.62%	0.27% 0.29%	
	19		0.00162059	5.80%	89.95	51.24		1.56%	0.29%	
	16		0.00155395	4.53%	86.94	48.23		1.35%	0.30%	
	6		0.00121372	3.81%	69.95	31.24		1.26%	0.27%	
	35		0.00102192	3.65%	100.50	61.79		1.38%	0.24%	4.5
	10		0.00097613	3.42%	78.82	40.11		1.44%	0.24%	
	25		0.00091653	3.42%		55.99		1.55%	0.32%	
	12		0.0008719	3.00%	82.04	43.33		1.80%	0.28%	
	2		0.00058209	2.17%	50.74	12.03		0.18%	0.06%	
	4		0.00038209	0.91%	63.04	24.33		1.93%	0.53%	
	- 4	311.001	0.00024409	0.8170	03.04	24.00		1.93%	0.55%	3.0

Sound 13	Chalumeau -	Legato – F							
NHN	Frequency		Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		Pitch Class
1		0.04717423	100.00%	40.89	0.00		0.00%	0.00%	4.9
5		0.0278525	59.04%	68.96	28.08	all partials sharp, 2 & 3 less so	1.25%	0.31%	9.0
3		0.02615787	55.45%	59.91	19.02		0.01%	0.00%	11.9
7		0.01022317	21.67%	74.73	33.84		0.90%	0.21%	2.7
11		0.00669231	14.19%	82.50	41.62		0.60%	0.13%	10.5
18		0.00562445	11.92%	91.05	50.16		0.71%	0.14%	7.0
9		0.00539357	11.43%	79.05	38.16		0.71%	0.16%	7.0
13		0.00519357	11.01%	85.43	44.55		0.82%	0.17%	1.4
12		0.0047133	9.99%	84.00	43.12		0.56%	0.12%	0.0
25		0.00352939	7.48%	96.75	55.86		0.79%	0.14%	0.7
17		0.00315161	6.68%	90.07	49.18		0.77%	0.15%	6.1
23		0.00310255	6.58%	95.32	54.43		0.85%	0.15%	11.3
20		0.00295375	6.26%	92.86	51.97		0.64%	0.12%	8.9
19		0.00294269	6.24%	91.98	51.10		0.71%	0.13%	8.0
26		0.00280808	5.95%	97.42	56.53		0.75%	0.13%	1.4
10		0.00265024	5.62%	80.86	39.98		0.66%	0.14%	8.9
35			5.09%	102.56	61.68		0.73%	0.12%	6.6
27		0.00232957	4.94%	98.07	57.18		0.73%	0.13%	2.1
34		0.00229853	4.87%	102.07	61.18		0.78%	0.13%	6.1
22		0.00220956	4.68%	94.55	53.67		0.88%	0.16%	10.6
32		0.00214046	4.54%	101.03	60.14		0.82%	0.14%	5.0
14		0.00203957	4.32%	86.73	45.84		0.90%	0.18%	2.7
33		0.00200244	4.24%	101.55	60.67		0.77%	0.13%	5.6
30		0.00195389	4.14%	99.92	59.03		0.88%	0.15%	3.9
29		0.00190367	4.04%	99.32	58.44		0.82%	0.14%	3.3
21		0.00172941	3.67%	93.74	52.85		0.83%	0.15%	9.7
31		0.00166508	3.53%	100.47	59.58		0.75%	0.13%	4.5
8		0.00149796	3.18%	77.03	36.14		0.81%	0.18%	5.0
24		0.00143361	3.04%	96.05	55.16		0.81%	0.15%	0.0
28		0.0014185	3.01%	98.71	57.82		0.79%	0.14%	2.7
16		0.00122672	2.60%	89.02	48.14		0.79%	0.15%	5.0
15		0.00118235	2.51%	87.92	47.03		0.85%	0.17%	3.9
6		0.001156738	2.45%	72.10	31.21		1.11%	0.27%	0.1
2		0.00098729	2.09%	52.89	12.01		0.04%	0.01%	4.9
4	351.038	0.00049126	1.04%	65.09	24.20		1.17%	0.31%	5.1

Sound 1	4 Chalumeau -	Legato – G							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	1 97.32		100.00%		0.00		0.00%	0.00%	
	3 291.98		92.19%	61.90	19.02	<u>all partials sharp</u>	0.00%	0.00%	
	5 486.65		39.76%	70.74	27.86	to slightly varying degrees	0.00%	0.00%	
	11 1076.16		29.06%	84.48	41.60		0.52%	0.11%	
		0.01006159	24.25%	76.71	33.83		0.80%	0.18%	
		0.00708625	17.08%	81.03	38.15		0.64%	0.14%	
		0.00592511	14.28%	95.68	52.80		0.55%	0.10%	
		0.00581857	14.02%	89.83	46.95		0.38%	0.07%	
	16 1562.83		11.23%	90.94	48.06		0.36%	0.07%	
		0.00441106	10.63%	101.85	58.97		0.52%	0.09%	
		0.00422173	10.18%	94.84	51.96		0.58%	0.11%	
	10 978.87		9.24%	82.84	39.96		0.58%	0.12%	
	25 2444.30		8.49%	98.69	55.81		0.46%	0.08%	
	29 2833.60		8.01%	101.24	58.36		0.40%	0.07%	
		0.00294078	7.09%	92.99	50.11		0.43%	0.08%	
		0.00278837	6.72%	85.99	43.10		0.49%	0.10%	
	17 1660.10		6.67%	91.99	49.11		0.34%	0.06%	
	13 1270.73		6.53%	87.36	44.48		0.44%	0.09%	
	23 2249.67		5.63%		54.37		0.50%	0.09%	
		0.00221861	5.35%	79.00	36.12		0.72%	0.16%	
		7 0.00219479	5.29%	100.01	57.13		0.43%	0.07%	
		0.00214185	5.16%		31.13		0.65%	0.15%	
		0.00211133	5.09%	97.99	55.10		0.49%	0.09%	
		0.00324513	7.82%	102.40	59.52		0.42%	0.07%	
		0.00203544	4.91%	96.48	53.60		0.52%	0.09%	
		0.00190823	4.60%	99.36	56.48		0.45%	0.08%	
		0.00188702	4.55%	102.97	60.09		0.54%	0.09%	
	19 1860.40		4.55%	93.96	51.08		0.61%	0.11%	
		0.00153031	3.69%	88.64	45.76		0.41%	0.08%	
		0.00147225 0.00130904	3.55% 3.16%	104.02 54.89	61.14 12.01		0.50% 0.05%	0.08% 0.02%	
		7 0.00130904	2.46%		60.62		0.50%	0.02%	
		7 0.00102087	2.46%		61.64		0.52%	0.08%	
		0.00086929	2.13%		24.01		0.52%	0.09%	
	28 2736.77		1.71%		24.01 57.76		0.43%	0.01%	
	20 2/30.//	0.0007088	1.71%	100.64	37.76		0.43%	0.07%	4.6

Sound 15	Chalumeau -	Legato – A							
NHN	Frequency		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Div	version (Pitch)	Pitch Class
1	108.882	0.05308027	100.00%	44.82	0.00		0.00%	0.00%	8.8
3	332.078	0.02590427	48.80%	64.13	19.31	All harmonic partials sharp	1.66%	0.45%	4.1
5		0.02162593	40.74%	72.86	28.04	except partial 2	1.02%	0.24%	0.9
9		0.00808371	15.23%	83.06	38.24		1.16%	0.24%	11.1
14		0.00733172	13.81%	90.70	45.87		1.08%	0.21%	6.7
10		0.00727257	13.70%	84.86	40.04		1.02%	0.21%	0.9
7	773.121		12.19%	78.76	33.94		1.44%	0.31%	6.8
18		0.00610495	11.50%	95.06	50.23		1.13%	0.21%	11.1
26		0.00548344	10.33%	101.43	56.61		1.17%	0.20%	5.4
11		0.00463855	8.74%	86.58	41.76		1.41%	0.28%	2.6
19		0.00440882	8.31%	96.00	51.18		1.18%	0.21%	0.0
21		0.00389209	7.33%	97.74	52.92		1.23%	0.22%	1.7
12		0.00363511	6.85%	88.06	43.24		1.25%	0.25%	4.1
22		0.00331347	6.24%	98.53	53.71		1.15%	0.20%	2.5
16		0.00311745	5.87%	93.04	48.22		1.26%	0.23%	9.0
24		0.00250248	4.71%	100.04	55.21		1.12%	0.19%	4.0
8		0.00242069	4.56%	81.04	36.22		1.28%	0.27%	9.0
17		0.00205371	3.87%	94.08	49.26		1.21%	0.22%	10.1
13		0.00203972	3.84%	89.43	44.61		1.18%	0.23%	5.4
6		0.00191688	3.61%	75.99	31.17		0.85%	0.19%	4.0
20		0.00142984	2.69%	96.90	52.08		1.26%	0.22%	0.9
23		0.00140928	2.65%	99.31	54.49		1.20%	0.21%	3.3
2		0.00078444	1.48%	56.81	11.99		-0.08%	-0.02%	8.8
4		0.00052386	0.99%	69.07	24.24		1.42%	0.35%	9.1
18		0.00043166	0.81%	94.52	49.70	INHARMONIC	-1.95%	-0.36%	10.5
16	1/05.807	0.00042949	0.81%	92.46	47.64	INHARMONIC	-2.08%	-0.39%	8.5

				Appendix 3				
25	2755.963 0.00031013	0.58%	100.76	55.94		1.25%	0.21%	4.8
Sound 16	Oh-1	D.						
NHN	Chalumeau – Legato – High Frequency Amplitude		Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch)	Pitch Class
1 3	117.663 0.04721113 352.918 0.02231423	100.00% 47.26%	46.17 65.18	0.00 19.02	All harmonic partials flat	0.00% -0.02%	0.00% -0.01%	10.2 5.2
9	1053.260 0.01882627	39.88%	84.11	37.95	except partial 2	-0.54%	-0.01%	0.1
5	582.315 0.0185728	39.34%	73.85	27.69		-1.02%	-0.24%	1.9
7 11	817.728 0.01365797 1283.210 0.00785382	28.93% 16.64%	79.73 87.53	33.56 41.36		-0.72% -0.86%	-0.16% -0.17%	7.7 3.5
14	1635.450 0.0055618	11.78%	91.73	45.56		-0.72%	-0.14%	7.7
25 17	2918.273 0.00511181 1989.400 0.00480886	10.83% 10.19%	101.75 95.12	55.59 48.96		-0.79% -0.54%	-0.14% -0.10%	5.8 11.1
8	935.743 0.00423535	8.97%	82.06	35.90		-0.59%	-0.12%	10.1
18 10	2100.603 0.00420124 1171.477 0.00379335	8.90% 8.03%	96.06 85.95	49.90 39.79		-0.82% -0.44%	-0.15% -0.09%	0.1 2.0
13	1518.653 0.00337605	7.15%	90.45	44.28		-0.72%	-0.14%	6.4
12	1400.193 0.00314525	6.66%	89.04	42.87		-0.83%	-0.16%	5.0
15 20	1754.467 0.0029269 2335.933 0.00269684	6.20% 5.71%	92.95 97.90	46.78 51.74		-0.59% -0.74%	-0.11% -0.13%	8.9 1.9
22	2571.373 0.00273786	5.80%	99.56	53.40		-0.66%	-0.12%	3.6
26 6	3036.230 0.00260361 700.178 0.00251384	5.51% 5.32%	102.44 77.04	56.27 30.88		-0.75% -0.82%	-0.13% -0.19%	6.4 5.0
29	3383.060 0.00247465	5.24%	104.31	58.15		-0.85%	-0.14%	8.3
16 24	1864.810 0.00237254 2800.687 0.00204114	5.03% 4.32%	94.00 101.04	47.84 54.88		-0.95% -0.82%	-0.17% -0.14%	10.0 5.0
27	3153.270 0.00198947	4.21%	103.10	56.93		-0.74%	-0.13%	7.1
19	2219.040 0.00156155	3.31%	97.01	50.85		-0.74%	-0.13%	1.0
32 30	3735.397 0.0014814 3505.077 0.00104274	3.14% 2.21%	106.03 104.93	59.86 58.76		-0.79% -0.70%	-0.13% -0.12%	10.0 8.9
31	3618.940 0.00103984	2.20%	105.48	59.31		-0.78%	-0.13%	9.5
28 4	3272.887 0.0008217 461.268 0.00081491	1.74% 1.73%	103.74 69.82	57.57 23.65		-0.66% -1.99%	-0.11% -0.50%	7.7 9.8
2	236.515 0.00074856	1.73%	58.25	12.09		0.51%	0.15%	10.3
23	2687.297 0.00074581	1.58%	100.33	54.16		-0.70%	-0.12%	4.3
21	2451.137 0.00056168	1.19%	98.73	52.57		-0.80%	-0.14%	2.7
Sound 17	Throat – pp – low							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch)	Pitch Class
1	174.313 0.01148651	100.00%	52.97	0.00		0.00%	0.00%	5.0
3	528.296 0.00052191 1597.883 9.8374E-005	4.54% 0.86%	72.17 91.33	19.20 38.36		1.02% 1.85%	0.25% 0.35%	0.2 7.3
	Throat – pp – high							
NHN 1	Frequency Amplitude 210.858 0.011	Amp Ratio 100.00%	Pitch (MIDI #) 56.27	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	o.00%	Pitch Class 8.3
3	630.820 0.00049342	4.49%	75.24	18.97		-0.28%	-0.06%	3.2
2	419.920 0.00014354 1048.683 0.00010817	1.30% 0.98%	68.19 84.04	11.93 27.77		-0.43% -0.53%	-0.11% -0.11%	8.2 0.0
5 8	1676.050 4.9100E-005	0.96%	92.15	35.89		-0.64%	-0.11%	8.2
	Throat – ff – low							
NHN 1	Frequency Amplitude 173.395 0.1013396	100.00%	Pitch (MIDI #) 52.88	Interval from Fundamental 0.00	Notes	Diversion (Hz) Divers	0.00%	Pitch Class 4.9
3	525.585 0.05562457	54.89%	72.08	19.20	note that all harmonic partials	1.04%	0.25%	0.1
6	1045.747 0.04696377 1220.943 0.04197093	46.34% 41.42%	83.99 86.67	31.11 33.79	<u>are slightly sharp</u>	0.52% 0.59%	0.11% 0.12%	12.0 2.7
9	1571.313 0.03624533	35.77%	91.04	38.16		0.69%	0.13%	7.0
17 5	2965.710 0.0301284 872.399 0.02857897	29.73% 28.20%	102.03 80.85	49.15 27.97		0.61% 0.63%	0.10% 0.13%	6.0
8	1397.967 0.01999153	19.73%	89.01	36.13		0.78%	0.15%	8.8 5.0
12	2093.420 0.01645683	16.24%	96.00	43.12		0.61%	0.11%	0.0
4 15	698.994 0.01502663 2618.907 0.0139093	14.83% 13.73%	77.01 99.88	24.13 47.00		0.78% 0.69%	0.18% 0.12%	5.0 3.9
11	1919.853 0.01353947	13.36%	94.51	41.63		0.66%	0.12%	10.5
21 18	3664.697 0.01052299 3140.897 0.01001082	10.38% 9.88%	105.70 103.03	52.82 50.15		0.64% 0.63%	0.11% 0.11%	9.7 7.0
20	3491.320 0.00890971	8.79%	103.03	51.98		0.68%	0.11%	8.9
14	2443.813 0.00753947	7.44%	98.68	45.80		0.67%	0.12% 0.11%	2.7 0.0
24 23	4190.353 0.00652729 4015.043 0.00591417	6.44% 5.84%	108.02 107.28	55.14 54.40		0.69% 0.68%	0.11%	11.3
26	4537.130 0.00570311	5.63%	109.39	56.52		0.64%	0.10%	1.4
19 22	3317.950 0.00551982 3837.947 0.0048094	5.45% 4.75%	103.98 106.50	51.10 53.62		0.71% 0.61%	0.12% 0.10%	8.0 10.5
10	1744.483 0.00461598	4.55%	92.85	39.97		0.61%	0.11%	8.8
29	5062.633 0.00440904	4.35%	111.29	58.41		0.68%	0.11%	3.3
25 27	4363.630 0.00365514 4712.233 0.00291859	3.61% 2.88%	108.72 110.05	55.84 57.17		0.66% 0.65%	0.11% 0.10%	0.7 2.1
16	2792.183 0.00262798	2.59%	100.99	48.11		0.64%	0.11%	5.0
13 28	2268.587 0.00253339 4887.483 0.00162849	2.50% 1.61%	97.39 110.68	44.52 57.80		0.64% 0.67%	0.11% 0.10%	1.4 2.7
30	5236.357 0.00141809	1.40%	111.88	59.00		0.66%	0.10%	3.9
31 2	5411.243 0.00106141 346.803 0.0005937	1.05% 0.59%	112.44 64.88	59.57 12.00		0.67% 0.00%	0.10% 0.00%	4.4 4.9
	340.003 0.0003331	0.5970	04.00	12.00		0.0070	0.0070	4.5
Sound 20	Throat – ff – high							
	Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
1 5	206.236 0.07163407 1040.207 0.04708893	100.00% 65.74%	55.88 83.90	0.00 28.01	All partials quite sharp, similar to	0.00% 0.88%	0.00% 0.18%	7.9 11.9
7	1454.500 0.0294691	41.14%	89.70	33.82	Sound 9 but to a lesser degree	0.75%	0.14%	5.7
3 14	624.090 0.0263521 2912.533 0.0172009	36.79%	75.05 101.72	19.17 45.84		0.87%	0.20%	3.1
9	1872.357 0.01127987	24.01% 15.75%	101.72 94.07	45.84 38.19		0.87% 0.87%	0.15% 0.16%	5.7 10.1
6	1248.187 0.01120213	15.64%	87.05	31.17		0.87%	0.17%	3.1
15 4	3118.703 0.00962033 830.416 0.00711716	13.43% 9.94%	102.90 80.00	47.02 24.11		0.81% 0.66%	0.14% 0.14%	6.9 8.0
18	3743.183 0.00544725	7.60%	106.06	50.18		0.83%	0.14%	10.1
10 13	2079.073 0.00523942 2702.730 0.0049286	7.31% 6.88%	95.88 100.43	40.00 44.54		0.81% 0.81%	0.15% 0.14%	11.9 4.4
	2702.700 0.0049200	0.0070	100.70	77.07		0.01/0	U. 14 /0	4.4

17	3536.680 0.00385066	5.38% 105.08	49.20	0.87%	0.14%	9.1
16	3325.163 0.00363098	5.07% 104.01	48.13	0.77%	0.13%	8.0
11	2288.477 0.00342314	4.78% 97.55	41.66	0.88%	0.16%	1.5
12	2494.870 0.00327772	4.58% 99.04	43.16	0.81%	0.14%	3.0
20	4161.247 0.00306307	4.28% 107.90	52.02	0.89%	0.14%	11.9
21	4366.977 0.00275591	3.85% 108.73	52.85	0.83%	0.13%	0.7
23	4783.180 0.00219638	3.07% 110.31	54.43	0.84%	0.13%	2.3
19	3949.023 0.00214178	2.99% 106.99	51.11	0.78%	0.13%	11.0
2	417.904 0.0021393	2.99% 68.11	12.23	1.32%	0.33%	8.1
8	1665.063 0.00184808	2.58% 92.04	36.16	0.92%	0.17%	8.0
30	6237.473 0.00167173	2.33% 114.90	59.02	0.81%	0.12%	6.9
28	5821.277 0.001601	2.23% 113.71	57.83	0.81%	0.12%	5.7
22	4573.487 0.00149934	2.09% 109.53	53.65	0.80%	0.13%	1.5
24	4995.017 0.00085868	1.20% 111.06	55.18	0.92%	0.14%	3.1
26	5405.280 0.00041652	0.58% 112.43	56.54	0.80%	0.12%	4.4
29	6031.930 0.00032299	0.45% 114.32	58.44	0.85%	0.13%	6.3

Sound 21	Throat - Stacc	ato – F							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	172.478	0.07198563	100.00%	52.79	0.00		0.00%	0.00%	4.8
3	516.450	0.0398304	55.33%	71.77	18.99	All harmonic partials flat	-0.19%	-0.05%	11.8
5		0.02364913	32.85%	80.69	27.90	except partial 17	0.21%		8.7
6	1036.310	0.0232165	32.25%	83.83	31.04		0.14%		
7		0.01801267	25.02%	86.49	33.70		0.09%		
10		0.01734763	24.10%	92.56	39.77		-0.54%		
17		0.01714457	23.82%	101.84	49.05		0.00%		
9	1554.407	0.0159303	22.13%	90.85	38.06		0.14%		
12		0.01488419	20.68%	95.75	42.97		-0.31%		11.8
11		0.01464023	20.34%	94.25	41.46		-0.29%		
15	2580.653	0.0141455	19.65%	99.63	46.84		-0.25%		
4		0.01265927	17.59%	76.77	23.98		-0.10%		
8		0.01037449	14.41%	88.69	35.90		-0.57%		
14		0.00890166	12.37%	98.43	45.64		-0.28%		
13		0.00850041	11.81%	97.14	44.35		-0.31%		
18		0.00806361	11.20%	102.75	49.96		-0.47%		
16		0.00437777	6.08%	100.65	47.86		-0.81%		4.6
20		0.00435463	6.05%	104.63	51.84		-0.12%		
22		0.00307482	4.27%	106.31	53.52		0.07%		
24		0.00254529	3.54%	107.81	55.03		0.05%		11.8
25		0.00189152	2.63%	108.40	55.62		-0.62%		
26		0.00167727	2.33%	109.18	56.40		-0.05%		
19		0.00153431	2.13%	103.74	50.95		-0.12%		
28		0.00153051	2.13%	110.43	57.64		-0.27%		
29		0.00129591	1.80%	111.07	58.29		-0.05%		
27		0.00127636	1.77%	109.73	56.94	INILIA DIMONIO	-0.66%		1.7
28		0.00126125	1.75%	110.26	57.47	INHARMONIC	-1.25%		
21		0.00102519	1.42%	105.39	52.60		-0.63%		9.4
23	3943.680	0.00090077	1.25%	106.97	54.18		-0.59%	-0.10%	11.0

Sound 22	Throat - Stace	ato – G#							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1		0.06765197	100.00%		0.00		0.00%		
3	610.282	0.0298837	44.17%		18.94		-0.43%		
5	1020.007	0.02857893	42.24%	83.56	27.84		-0.15%		
10	2038.293		38.23%	95.54	39.82		-0.23%		
7		0.02320237	34.30%	89.35	33.63		-0.33%		5.4
8		0.01846227	27.29%		35.94		-0.36%		
9		0.01621137	23.96%		38.00		-0.23%		
15		0.01601567	23.67%	102.56	46.84		-0.23%		
6		0.01295043	19.14%	86.67	30.95		-0.42%		
4		0.00939411	13.89%		23.95		-0.27%		
13		0.00864203	12.77%	100.08	44.36		-0.28%		
11		0.00815668	12.06%		41.42		-0.51%		
14		0.00749942	11.09%	101.41	45.69		0.01%		
12		0.00674548	9.97%	98.66	42.94		-0.47%		
17		0.00562515	8.31%		49.00		-0.28%		
18		0.00322108	4.76%		50.03		-0.07%		
16		0.00310591	4.59%	103.66	47.94		-0.32%		
21		0.00258519	3.82%	108.24	52.53		-1.05%		
2			3.77%	67.63	11.91		-0.52%		
20		0.00201547	2.98%	107.62	51.90		0.21%		
19		0.00186653	2.76%	106.52	50.80		-0.99%		
22		0.00165163	2.44%	109.25	53.53		0.12%		
23		0.00159069	2.35%	109.82	54.11		-1.02%		
24		0.00109681	1.62%	110.71	54.99	INVIA DAGONIO	-0.17%		2.7
8		0.00104702	1.55%	92.42	36.70	INHARMONIC	4.10%		
24		0.00076714	1.13%	110.42	54.70	INHARMONIC	-1.83%		
22	4413.890	0.00073229	1.08%	108.92	53.20	INHARMONIC	-1.80%	-0.29%	0.9

Sound 23	Throat - Legar	to – E							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1		0.04257503	100.00%		0.00		0.00%		
3	486.885	0.02970827	69.78%	70.75	19.02	All harmonic partials slightly sharp	0.00%		
5	816.833	0.02401997	56.42%	79.71	27.98	except partial 2	0.66%		
7	1141.497		51.15%	85.50	33.77		0.48%		
13		0.01502633	35.29%	96.23	44.49		0.51%		
9			27.22%	89.84	38.10		0.37%	0.07%	
18		0.00751752	17.66%	101.86	50.12		0.49%	0.08%	
15		0.00653586	15.35%	98.69	46.96		0.44%	0.08%	
10			13.83%	91.69	39.96		0.55%	0.10%	
6			12.76%	82.85	31.12		0.57%	0.12%	
11	1794.173		12.66%	93.33	41.60		0.50%	0.09%	
23		0.00409907	9.63%	106.11	54.38		0.53%	0.09%	
4		0.00377823	8.87%	75.88	24.14		0.83%		
8		0.00330859	7.77%	87.81	36.07		0.42%	0.08%	
21		0.00313278	7.36%	104.52	52.79		0.48%	0.08%	
19		0.00263644	6.19%	102.79	51.05		0.46%	0.08%	
22		0.00252682	5.93%	105.32	53.59		0.46%	0.07%	
16		0.00235075	5.52%	99.80	48.07		0.41%		
20		0.00223211	5.24%	103.68	51.95		0.50%		
25		0.00181949	4.27%	107.54	55.81		0.49%	0.08%	
17		0.00105082	2.47%	100.87	49.14		0.52%		
12	1958.253	0.00095943	2.25%	94.85	43.12		0.55%	0.10%	10.8

2	324.518 0.00080467	1.89%	63.73	12.00	-0.02%	-0.01%	3.7
14	2283.030 0.00077092	1.81%	97.50	45.77	0.48%	0.09%	1.5
24	3916.940 0.00052354	1.23%	106.85	55.12	0.56%	0.09%	10.8

Sound 24	Throat - Legat	to – F							
NHN	Frequency		Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diversion	n (Pitch)	Pitch Class
1	172.974	0.05239357	100.00%	52.84	0.00		0.00%	0.00%	4.8
3	518.939	0.0293386	56.00%	71.86	19.02	All harmonic partials slightly sharp	0.00%	0.00%	11.9
7	1216.443	0.0173702	33.15%	86.61	33.77		0.46%	0.09%	2.6
5		0.01402547	26.77%	80.81	27.97		0.64%	0.14%	8.8
6	1043.600		23.55%	83.95	31.12		0.55%	0.11%	12.0
9		0.00977383	18.65%	90.94	38.10		0.36%	0.07%	6.9
17		0.00701001	13.38%	101.95	49.12		0.38%	0.06%	6.0
12		0.00636661	12.15%	95.95	43.11		0.53%	0.10%	11.9
4		0.00431923	8.24%	76.93	24.09		0.55%	0.12%	4.9
20		0.00414565	7.91%	104.78	51.95		0.48%	0.08%	8.8
15		0.00391414	7.47%	99.79	46.96		0.43%	0.08%	3.8
22		0.00299442	5.72%	106.43	53.59		0.44%	0.07%	10.4
11		0.00247914	4.73%	94.44	41.60		0.50%	0.09%	10.4
10		0.00196655	3.75%	92.75	39.91		0.28%	0.05%	8.7
18		0.00189585	3.62%	102.95	50.11		0.42%	0.07%	6.9
14		0.00184199	3.52%	98.61	45.77		0.49%	0.09%	2.6
24		0.00176195	3.36%	107.93	55.09		0.41%	0.06%	11.9
13		0.00165034	3.15%	97.33	44.49		0.49%	0.09%	1.3
19		0.00136975	2.61%	103.89	51.05		0.45%	0.08%	7.9
8		0.00120257	2.30%	88.92	36.08		0.47%	0.09%	4.9
21	3649.893		2.11%	105.63	52.79		0.48%	0.08%	9.6
26		0.000843	1.61%	109.31	56.47		0.39%	0.06%	1.3
33		0.00071024	1.36%	113.45	60.61		0.46%	0.07%	5.4
32		0.00068979	1.32%	112.92	60.08		0.48%	0.07%	4.9
31		0.00059639	1.14%	112.37	59.53		0.46%	0.07%	4.4
30		0.00058505	1.12%	111.80	58.96		0.44%	0.07%	3.8 3.2
29		0.00053447	1.02%	111.21	58.37		0.46%	0.07%	
23		0.00050171	0.96%	107.20	54.37		0.49%	0.08%	11.2
28		0.00030373	0.58%	110.60	57.76		0.41%	0.06%	2.6 4.8
2	346.050	0.00024711	0.47%	64.84	12.01		0.03%	0.01%	4.8

Sound 25	Throat - Lega	to – F#							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	184.147		100.00%	53.92	0.00		0.00%	0.00%	
3			53.73%	73.05	19.13	All harmonic partials slightly sharp	0.65%	0.15%	
5			18.92%	81.89	27.97		0.60%	0.13%	
9		0.01095672	17.34%	92.06	38.14		0.56%	0.11%	
16		0.00947228	14.99%	102.04	48.12		0.68%	0.12%	
.6		0.00801913	12.69%	85.02	31.10		0.48%	0.10%	
11		0.00793586	12.56%	95.56	41.64		0.73%	0.13%	
4		0.00660862	10.46%	78.05	24.13		0.73%	0.16%	6.0
8		0.00542322	8.58%	90.02	36.10		0.61%	0.12%	
20		0.00494529	7.83%	105.89	51.97		0.64%	0.10%	
13		0.00488334	7.73%	98.43	44.51		0.62%	0.11%	
14		0.00483597	7.65%	99.71 93.89	45.79 39.97		0.57%	0.10%	
10 17		0.00463247 0.00446112	7.33% 7.06%	103.08	39.97 49.16		0.60% 0.65%	0.11% 0.11%	
		0.00446112	6.52%				0.65%		
7 12		0.00412276	5.30%	87.73 97.05	33.81 43.13		0.71%	0.14% 0.12%	
19		0.00355153	4.08%	104.99	43.13 51.07		0.56%	0.12%	
18		0.00257673	3.90%	104.99	50.14		0.60%	0.10%	
22		0.00240404	3.50%	107.54	53.62		0.62%	0.10%	
32		0.002266817	3.27%	114.03	60.11		0.65%	0.10%	
30		0.00162303	2.57%	112.91	58.99		0.63%	0.10%	
24		0.00136837	2.17%	109.04	55.12		0.60%	0.10%	
23		0.00131271	2.08%	108.31	54.39		0.64%	0.10%	
15		0.001155135	1.83%	100.93	47.01		0.72%	0.12%	
31		0.001117022	1.77%	113.47	59.55		0.60%	0.09%	
29	5374.810	0.00100215	1.59%	112.33	58.41		0.65%	0.10%	
28		0.00095803	1.52%	111.72	57.80		0.63%	0.10%	3.7
26	4816.580	0.00083896	1.33%	110.43	56.51		0.60%	0.09%	2.4
27		0.00074555	1.18%	111.09	57.17		0.63%	0.10%	
25		0.00058008	0.92%	109.75	55.83		0.62%	0.10%	
2	368.385	0.00041779	0.66%	65.92	12.00		0.02%	0.01%	5.9

	Throat – Legat								
NHN		Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1		0.05508873	100.00%	54.91	0.00		0.00%	0.00%	
3	590.299	0.03374483	61.26%	74.09	19.18	All harmonic partials quite sharp	0.92%	0.22%	
7		0.01192804	21.65%	88.69	33.78		0.54%	0.11%	
5		0.01181773	21.45%	82.87	27.96		0.57%	0.12%	
15		0.01145397	20.79%	101.90	46.99		0.63%	0.11%	
6		0.01089952	19.79%	86.03	31.13		0.62%	0.12%	
8		0.00971435	17.63%	91.03	36.12		0.69%	0.13%	
11		0.00960507	17.44%	96.53	41.62		0.60%	0.11%	
19		0.00634159	11.51%	106.00	51.09		0.65%	0.11%	
4		0.00594109	10.78%	79.03	24.12		0.69%	0.15%	
12		0.00559382	10.15%	98.04	43.13		0.63%	0.11%	
10		0.00505133	9.17%	94.88	39.98		0.66%	0.12%	
16		0.00480761	8.73%	103.01	48.10		0.59%	0.10%	
9		0.00325104	5.90%	93.06	38.15		0.63%	0.12%	
13		0.00316857	5.75%	99.43	44.52		0.65%	0.11%	
14		0.00270329	4.91%	100.71	45.81		0.68%	0.12%	
21		0.00265427	4.82%	107.72	52.82		0.63%	0.10%	
17		0.00239462	4.35%	104.06	49.16		0.62%	0.10%	
18		0.00234344	4.25%	105.04	50.13		0.55%	0.09%	
23		0.00123383	2.24%	109.30	54.39		0.61%	0.10%	
26		0.00117435	2.13%	111.43	56.52		0.66%	0.10%	
20		0.00096509	1.75%	106.88	51.97		0.61%	0.10%	
2		0.00095369	1.73%	66.99	12.08		0.47%	0.12%	
27		0.00092053	1.67%	112.08	57.17		0.63%	0.10%	
22		0.00069482	1.26%	108.52	53.62		0.59%	0.09%	
24	4708.390	0.00055223	1.00%	110.04	55.13		0.62%	0.10%	2.0

Sound 27 Throat - Legato - G#

				Appendix 3				
NHN	Frequency Amplitude		Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
1	205.806 0.06193887	100.00%	55.85	0.00	All become a six as a stirle assiste a become	0.00%	0.00%	7.8
3 7		55.63% 45.43%	75.01 89.67	19.17 33.82	All harmonic partials quite sharp	0.87% 0.76%	0.20% 0.15%	3.0 5.7
5		44.17%	83.80	27.96		0.76%	0.13%	11.8
14		22.64%	101.63	45.79		0.58%	0.10%	5.6
6		21.36%	86.94	31.10		0.44%	0.09%	2.9
10		21.27%	95.80	39.96		0.54%	0.10%	11.8
8		20.19%	91.96	36.11		0.66%	0.12%	8.0
9		12.75%	93.99	38.14		0.60%	0.11% 0.11%	10.0
15 18		12.19% 11.63%	102.84 105.99	47.00 50.14		0.66% 0.58%	0.11%	6.8 10.0
4		11.13%	79.96	24.11		0.66%	0.14%	8.0
17		10.14%	105.00	49.16		0.63%	0.10%	9.0
20	4141.130 0.00461711	7.45%	107.81	51.97		0.61%	0.10%	11.8
11		6.86%	97.47	41.62		0.65%	0.11%	1.5
13		6.51%	100.36	44.51		0.62%	0.11%	4.4
12 16		4.54% 4.25%	98.98 103.96	43.13 48.11		0.67% 0.66%	0.12% 0.11%	3.0 8.0
19		3.41%	106.92	51.08		0.60%	0.10%	10.9
27	5592.017 0.00191098	3.09%	113.01	57.17		0.63%	0.10%	5.0
22		2.46%	109.46	53.61		0.58%	0.09%	1.5
28		2.44%	113.64	57.79		0.61%	0.09%	5.6
21		2.13%	108.66	52.82		0.63%	0.10%	0.7
2 26		1.91%	67.93 112.36	12.08 56.52		0.47% 0.65%	0.12% 0.10%	7.9 4.4
25		1.99% 1.70%	111.68	55.84		0.65%	0.10%	3.7
23		1.52%	110.23	54.38		0.57%	0.09%	2.2
15		0.51%	102.48	46.64	INHARMONIC	-1.41%	-0.24%	6.5
Sound 28	Clarion – pp – low							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Pitch) Pit	ch Class
1	235.964 0.00719917	100.00%	58.21	0.00		0.00%	0.00%	10.2
3	704.307 0.00050908	7.07%	77.14	18.93		-0.51%	-0.11%	5.1
2	471.964 0.0004444	6.17%	70.21	12.00		0.01%	0.00%	10.2
2		0.67%	72.96	14.75	INHARMONIC	17.20%	3.91%	1.0
7		0.60%	91.31	33.10	probably inharmonic	-3.33% 15.50%	-0.64%	7.3 7.3
2 7		0.55% 0.48%	67.28 90.68	9.07 32.47	INHARMONIC INHARMONIC	-15.59% -6.82%	-4.18% -1.33%	6.7
4		0.47%	83.66	25.44	INHARMONIC	8.70%	1.76%	11.7
-				23.11				2.222
C 0 0								
NHN	Clarion – pp – high Frequency Amplitude	Amn Patio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	sion (Ditch) Dit	ch Class
1	350.903 0.01737727	100.00%	65.08	0.00	Notes	0.00%	0.00%	5.1
3		5.37%	84.07	18.99		-0.17%	-0.04%	0.1
2		3.05%	77.04	11.96		-0.26%	-0.06%	5.0
4		0.82%	89.03	23.95		-0.29%	-0.06%	5.0
5 5		0.74% 0.32%	92.94 91.93	27.86 26.85	INHARMONIC	-0.01% -5.70%	0.00% -1.09%	8.9 7.9
5	1654.425 0.00005575	0.32%	91.93	20.05	INHARMONIC	-5.70%	-1.09%	7.9
	Clarion – ff – low							
NHN	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
NHN 1	Frequency Amplitude 235.036 0.05918687	100.00%	58.14	0.00		0.00%	0.00%	10.1
NHN 1 8	235.036 0.05918687 1864.083 0.04074203	100.00% 68.84%	58.14 93.99	0.00 35.85	Notes all partials quite flat, as in Sound 1	0.00% -0.86%	0.00% -0.16%	10.1 10.0
NHN 1	235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733	100.00%	58.14	0.00		0.00%	0.00%	10.1
NHN 1 8 3	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784	100.00% 68.84% 65.52%	58.14 93.99 77.03	0.00 35.85 18.89		0.00% -0.86% -0.77%	0.00% -0.16% -0.17%	10.1 10.0 5.0
NHN 1 8 3 7 12 10	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.0253084	100.00% 68.84% 65.52% 46.63% 42.88% 39.72%	58.14 93.99 77.03 91.70 101.03 97.87	0.00 35.85 18.89 33.55 42.89 39.73		0.00% -0.86% -0.77% -0.77% -0.77% -0.77%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14%	10.1 10.0 5.0 7.7 5.0 1.9
NHN 1 8 3 7 12 10 9	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.023213	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22%	58.14 93.99 77.03 91.70 101.03 97.87 96.05	0.00 35.85 18.89 33.55 42.89 39.73 37.91		0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14%	10.1 10.0 5.0 7.7 5.0 1.9 0.0
NHN 1 8 3 7 12 10 9 5	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.02553784 2332.350 0.023250693 2099.023 0.023213 1164.287 0.02244327	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 37.92%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70		0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14%	10.1 10.0 5.0 7.7 5.0 1.9 0.0
NHN 1 8 3 7 12 10 9 5 13	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 37.92% 32.97%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27		0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.19% -0.13%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4
NHN 1 8 3 7 12 10 9 5 13 6	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 37.92% 32.97% 21.31%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89		0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.13% -0.13% -0.15%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0
NHN 1 8 3 7 12 10 9 5 13	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.023213 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2563.670 0.01022094	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 37.92% 32.97%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27		0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.19% -0.13%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4
NHN 1 8 3 7 12 10 9 5 13 6 11 2 4	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1832.527 0.02759757 2798.780 0.0253784 2332.350 0.03250693 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2563.670 0.01022094 484.701 0.00557248 934.855 0.00241872	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 37.92% 32.97% 21.31% 17.27% 9.42% 4.09%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90	all partials quite flat, as in Sound 1	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.19% -0.15% -0.15% -0.28% -0.12%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9
NHN 1 8 3 7 12 10 9 5 13 6 6 11 2 4 4	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 37.92% 32.97% 21.31% 17.27% 9.42% 4.09% 1.26%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81	all partials quite flat, as in Sound 1	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.13% -0.15% -0.15% -0.28% -0.12% 2.20%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0
NHN 1 8 8 7 12 10 9 5 13 6 11 2 4 4 13	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.03550693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 32.97% 21.31% 21.31% 9.42% 4.09% 1.26% 1.14%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.15% -0.15% -0.28% -0.12% 2.20% -0.53%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0
NHN 1 8 3 3 7 7 12 10 9 5 13 6 6 11 2 4 4 4 13 3 2	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01925160 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.00067655	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 37.92% 21.31% 17.27% 9.42% 4.09% 1.26% 0.90%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.53% -0.40%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 7.3
NHN 1 8 3 7 12 10 9 5 5 13 6 11 2 4 4 4 4 13	Frequency Amplitude 235.03	100.00% 68.84% 46.63% 42.88% 39.72% 39.22% 37.92% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.15% -0.28% -0.12% 2.20% -0.53% -0.04% 0.025%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 7.3 6.8
NHN 1 8 3 7 12 12 10 9 5 13 6 11 1 2 4 4 13 2 13 13 13 1	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01925160 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.00067655	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 37.92% 21.31% 17.27% 9.42% 4.09% 1.26% 0.90%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.53% -0.40%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 7.3
NHN 1 8 3 7 12 10 9 5 13 6 11 2 4 13 2 13	Frequency Amplitude 235.03	100.00% 68.84% 46.63% 42.88% 39.72% 39.22% 37.92% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.15% -0.28% -0.12% 2.20% -0.53% -0.04% 0.025%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 6.0
NHN 1 8 3 7 7 12 10 9 5 13 6 11 2 4 4 13 13 9	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.03250693 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0122156 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.0074581 2960.663 0.00067655 399.043 0.00053431 3101.167 0.0050657 2027.560 0.00042913	100.00% 68.84% 46.63% 42.88% 39.72% 39.22% 37.92% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.15% -0.28% -0.12% 2.20% -0.53% -0.04% 0.025%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 6.0
NHN 1 8 3 3 7 7 12 10 9 5 13 6 6 11 2 4 4 13 13 9 9	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.02350693 2099.023 0.022213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.00053431 3101.167 0.00050657 2027.560 0.00042913	100.00% 68.84% 46.53% 42.88% 39.72% 39.22% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90% 0.86% 0.73%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.95 82.05 83.96 102.00 102.81 95.45	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.149% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76%	10.1 10.0 5.0 7.7 5.0 0.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 7.3 6.8 11.5
NHN 1 8 3 7 12 10 9 5 13 6 11 2 4 4 13 2 13 9 Sound 31 NHN	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.080.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.0253784 2332.350 0.022350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0126156 2653.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.00053431 3101.167 0.00055075 2027.560 0.00042913	100.00% 68.84% 46.63% 42.88% 439.72% 39.22% 37.92% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90% 0.86% 0.73%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.13% -0.15% -0.15% -0.15% -0.12% -0.12% -0.12% -0.53% -0.04% -0.05% -0.76%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 7.3 6.8 11.5
NHN 1 8 3 7 7 12 10 9 5 13 6 11 2 4 4 13 13 9	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 39.22% 32.97% 21.31% 4.09% 4.09% 1.26% 1.14% 0.90% 0.86% 0.73%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.95 82.05 83.96 102.00 102.81 95.45	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.149% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76%	10.1 10.0 5.0 7.7 5.0 0.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 7.3 6.8 11.5
NHN 1 8 3 3 7 7 12 110 9 5 13 6 6 111 2 4 4 4 13 2 13 9 Sound 31 NHN 3	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.03550693 2099.023 0.032213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.0122616 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.00053431 3101.167 0.000550657 2027.560 0.00042913	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.90% 0.86% 0.73% 107.51% 100.00% 53.77%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.15% -0.15% -0.15% -0.28% -0.28% -0.25% -0.76% sion (Pitch) -0.11% -0.00% -0.11% -0.00% -0.11% -0.00% -0.11%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 6.8 11.5
NHN 1 8 3 7 7 7 12 10 9 9 5 13 6 11 2 4 4 13 2 13 9 Sound 31. NHN 3 1 5 6	Frequency Amplitude 235.036 0.05918687 1864.083 0.04074203 699.698 0.03877733 1632.527 0.02759757 2798.780 0.0253784 2332.350 0.03350693 2099.023 0.023213 1164.287 0.02244327 3031.827 0.01951607 1399.440 0.10216156 2563.670 0.01022094 464.701 0.00557248 934.855 0.00241872 1043.793 0.00074581 2960.663 0.00067655 399.043 0.0005657 2027.560 0.00042913 Clarion – ff – high Frequency Amplitude 1044.570 0.11680267 346.408 0.10864433 1742.820 0.05841907 2089.207 0.051572117	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 32.97% 21.31% 17.27% 9.42% 0.99% 1.26% 0.73% Amp Ratio 107.51% 100.00% 53.77% 47.47%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.15% -0.15% -0.15% -0.28% -0.15% -0.25% -0.76% sion (Pitch) Pit 0.11% 0.00% 0.12% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 9.9 10.0 12.0 6.8 11.5
NHN 1 8 3 3 7 12 12 10 9 5 13 6 11 2 2 4 4 13 2 2 13 9 9 Sound 31 NHN 3 1 5 6 6 4	Frequency	100.00% 68.84% 46.63% 42.88% 42.88% 39.72% 39.22% 21.31% 17.27% 9.42% 4.09% 4.09% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 47.47% 46.80%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.12% -0.53% -0.076% sion (Pitch) Pit 0.11% 0.00% 0.11% 0.00%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.0 7.3 6.8 11.5
NHN 1 8 3 3 7 7 12 110 9 5 5 13 3 6 6 111 2 4 4 4 13 13 2 9 13 9 15 6 6 15 6 6 4 4 9 15 6 6 6 4 4 9 15 6 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 37.92% 32.97% 21.31% 17.27% 9.42% 0.99% 1.26% 0.73% 0.86% 0.73%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.00% 0.62% 0.52% 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.53% -0.53% -0.6% sion (Pitch) -0.15% -0.25% -0.76%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 6.8 11.5 ch Class 12.0 4.9 8.8 12.0
NHN 1 8 3 7 12 12 10 9 5 13 6 6 11 1 2 4 4 13 2 13 9 9	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 32.97% 21.31% 4.09% 1.26% 1.14% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 47.47% 47.47% 46.80% 18.10% 12.62%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 61.20 61.	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.66% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pitch 0.11% 0.00% 0.12% 0.00% 0.12% 0.09% 0.10% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.5 9.9 10.0 12.0 6.0 7.3 6.8 11.5
NHN 1 8 3 3 7 12 10 9 5 5 13 3 6 11 1 2 2 4 4 4 13 2 2 13 3 9 Sound 31 NHN 3 1 5 6 6 9 7 10 10	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 17.27% 9.42% 0.90% 0.86% 0.73% 107.51% 100.00% 53.77% 47.47% 46.80% 18.10% 10.20%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.12% -0.28% -0.76% sion (Pitch) Pit -0.10% -0.00% -0.00% -0.00% -0.09% -0.09% -0.09% -0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 7.3 6.8 11.5
NHN 1 8 3 3 7 7 12 110 9 5 13 6 6 111 2 4 4 4 13 3 2 13 9 15 6 6 11 1 5 6 6 4 9 9 7 7 10 12	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 32.97% 621.31% 17.27% 9.42% 0.99% 1.26% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 47.47% 48.80% 18.10% 12.62% 10.20% 9.63%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.11% 0.00% 0.12% 0.09% 0.10% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 9.9 10.0 6.8 11.5 ch Class 12.0 4.9 8.8 12.0 4.9 7.0 6.8 8.2 9.2 8.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9
NHN 1 8 3 3 7 12 10 9 5 5 13 3 6 11 1 2 2 4 4 4 13 2 2 13 3 9 Sound 31 NHN 3 1 5 6 6 9 7 10 10	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 17.27% 9.42% 0.90% 0.86% 0.73% 107.51% 100.00% 53.77% 47.47% 46.80% 18.10% 10.20%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.12% -0.28% -0.76% sion (Pitch) Pit -0.10% -0.00% -0.00% -0.00% -0.09% -0.09% -0.09% -0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 9.9 10.0 12.0 6.8 11.5 12.0 4.9 8.8 12.0 4.9 7.0 2.6 8.8 12.0
NHN 1 8 3 3 7 12 12 10 9 5 13 6 6 11 1 2 2 13 9 9 1 5 6 4 4 9 9 7 7 10 12 2 13 8 18 18 18 18 18 18 18 18 18 18 18 18 1	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 32.97% 4.09% 17.27% 9.42% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 18.10% 12.62% 10.20% 9.63% 9.55% 9.21%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pitch 0.11% -0.00% -0.12% -0.12% -0.12% -0.10% -0.10% -0.10% -0.10% -0.09% -0.10% -0.09% -0.00	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 9.9 10.0 6.8 11.5 12.0 4.9 8.8 12.0 4.9 8.8 12.0 2.6 8.8 12.0 12.0 4.9 8.8 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0
NHN 1 8 3 3 7 12 12 10 9 5 5 13 3 6 11 1 2 2 13 3 9 Sound 31 NHN 3 1 5 6 4 9 9 7 7 10 12 2 13 8 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 32.97% 17.27% 9.42% 4.09% 1.14% 0.90% 0.73% 107.51% 100.00% 53.77% 47.47% 46.80% 18.10% 12.62% 9.63% 9.55% 9.21% 6.89%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 84.96 92.83 95.97 84.96 107.98 76.99 109.35 100.96 106.47	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.56% -0.84% -1.14% -0.56% -1.102% -3.10% -15.11% -1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.55% 0.55% 0.56%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.28% -0.28% -0.76% sion (Pitch) Pit -0.10% -0.00%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5
NHN 1 8 3 3 7 7 12 10 10 9 5 13 3 6 11 1 2 4 4 4 3 13 2 13 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.99% 1.26% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 12.62% 18.10% 12.62% 9.63% 9.55% 9.21% 6.89% 5.67%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96 106.47 115.93	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.52%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.11% 0.00% 0.12% 0.09% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.8 11.5 12.0 4.9 8.8 12.0 4.9 7.0 2.6 8.8 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0
NHN 1 8 3 3 7 12 10 9 5 13 6 11 12 4 4 13 2 13 9 Sound 31. NHN 3 1 5 6 4 9 9 7 10 12 2 13 8 11 19 17	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 39.22% 32.97% 4.09% 17.27% 9.42% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 18.10% 12.62% 10.20% 9.63% 9.55% 9.21% 6.89% 5.67% 4.444% 4.44%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 61.02.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96 106.47 115.93 114.00	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.56% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.19% -0.15% -0.28% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pitch 0.11% 0.00% 0.12% 0.00% 0.12% 0.09% 0.10% 0.09% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.8 11.5 12.0 4.9 8.8 12.0 4.9 7.0 6.8 12.0 4.9 7.0 6.8 12.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0
NHN 1 8 3 3 7 7 12 12 10 9 5 5 13 3 6 6 11 1 2 2 4 4 4 4 4 13 2 2 13 3 9 9 9 7 7 10 12 2 2 13 8 8 11 11 19 17 18	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 621.31% 17.27% 9.42% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 46.80% 47.47% 46.80% 48.10% 12.62% 9.63% 9.21% 6.89% 5.67% 4.44% 3.93%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 107.98 76.99 109.35 100.96 106.47 115.93 114.00 114.99	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% -6.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.56% 0.78% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.11% 0.00% 0.11% 0.00% 0.11% 0.09% 0.10% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 12.0 4.9 8.8 12.0 4.9 2.6 8.8 12.0 5.0 1.8 1.8 1.9 1.0 1.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
NHN 1 8 3 3 7 12 12 10 9 5 13 6 6 11 1 2 4 4 13 2 13 9 9 1 1 1 5 6 6 4 9 7 7 10 12 2 13 8 11 1 19 19 17 18 16 16 16 16 16 16 16 16 16 16 16 16 16	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 39.22% 32.97% 9.42% 17.27% 9.42% 0.99% 1.26% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 12.62% 10.20% 9.63% 9.55% 9.21% 6.89% 5.67% 4.44% 3.93% 3.87%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96 106.47 115.93 114.00 114.99 112.95	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -151.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.55% 0.56% 0.78% 0.56% 0.56% 0.54% 0.55% 0.55% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pitch 0.11% 0.00% -0.12% 0.00% 0.12% 0.09% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.09% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 9.9 10.0 6.8 11.5 12.0 4.9 8.8 12.0 2.6 8.8 12.0 12.0 12.0 4.9 8.8 12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0
NHN 1 8 3 3 7 7 12 12 10 9 5 5 13 3 6 6 11 1 2 2 4 4 4 4 4 13 2 2 13 3 9 9 9 7 7 10 12 2 2 13 8 8 11 11 19 17 18	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 621.31% 17.27% 9.42% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 46.80% 47.47% 46.80% 48.10% 12.62% 9.63% 9.21% 6.89% 5.67% 4.44% 3.93%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 107.98 76.99 109.35 100.96 106.47 115.93 114.00 114.99	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% -6.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.56% 0.78% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.11% 0.00% 0.11% 0.00% 0.11% 0.09% 0.10% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 12.0 4.9 8.8 12.0 4.9 2.6 8.8 12.0 5.0 1.8 1.8 1.9 1.0 1.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
NHN 1 8 3 3 7 7 12 12 10 9 5 13 6 11 1 2 2 13 3 9 1 5 6 4 4 9 9 7 7 10 12 2 13 8 8 11 19 17 18 16 14 14 16 14 16 14 16 16 14 16 16 16 16 16 16 16 16 16 16 16 16 16	Frequency	100.00% 68.84% 46.63% 42.88% 39.72% 39.22% 32.97% 4.21.31% 17.27% 9.42% 4.09% 1.14% 0.90% 1.07.51% 100.00% 53.77% 47.47% 46.80% 18.10% 12.62% 10.20% 9.63% 9.55% 9.21% 6.89% 5.67% 4.44% 3.93% 3.87% 4.32%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.05 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 99.99 109.35 100.96 106.47 115.93 114.00 114.99 112.95 110.64	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.15% -0.16% -0.12% -0.28% -0.76% sion (Pitch) Pit -0.10% -0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 6.0 1.5 11.5 Ch Class 12.0 4.9 8.8 12.0 4.9 4.9 7.0 2.6 8.8 12.0 5.0 1.4 5.0 10.5 7.9 6.0 10.0 10.0 11.4 5.0 10.5 7.9 6.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0
NHN 1 8 3 3 7 7 12 110 9 5 5 13 3 6 6 111 2 2 13 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 1.14% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 12.62% 10.95% 12.62% 10.95% 12.62% 10.95%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 110.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.19% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.10% 0.12% 0.09% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 12.0 4.9 8.8 12.0 2.6 8.8 12.0 5.0 1.8 12.0 4.9 4.9 7.0 2.6 8.8 12.0 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8
NHN 1 8 3 3 7 7 12 100 9 5 5 13 3 6 111 2 4 4 4 13 2 13 9 Sound 31 NHN 3 1 5 6 6 4 9 7 7 0 10 2 2 2 13 3 8 8 11 19 17 18 18 16 14 20	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 1.14% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 12.62% 10.95% 12.62% 10.95% 12.62% 10.95%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 110.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.19% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.10% 0.12% 0.09% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 12.0 4.9 8.8 12.0 2.6 8.8 12.0 5.0 1.8 12.0 4.9 4.9 7.0 2.6 8.8 12.0 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8
NHN 1 8 3 3 7 12 10 9 5 13 6 6 11 1 2 2 4 4 4 13 2 2 13 3 9 9 5 6 4 9 9 7 7 10 12 2 13 13 8 11 19 17 18 16 14 20 22	Frequency	100.00% 68.84% 46.53% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 1.14% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 46.80% 12.62% 10.95% 12.62% 10.95% 12.62% 10.95%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 110.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96	all partials quite flat, as in Sound 1 INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.51% 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.19% -0.15% -0.15% -0.15% -0.28% -0.15% -0.28% -0.76% sion (Pitch) Pit 0.00% 0.10% 0.12% 0.09% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.10% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 12.0 4.9 8.8 12.0 2.6 8.8 12.0 5.0 1.8 12.0 4.9 4.9 7.0 2.6 8.8 12.0 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8
NHN 1 8 3 7 12 10 9 5 13 6 6 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.99% 1.26% 0.73% Amp Ratio 107.51% 100.00% 63.77% 46.80% 63.77% 46.80% 12.62% 9.63% 9.21% 6.89% 5.67% 9.21% 6.89% 5.67% 9.21% 6.89% 5.67%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 114.00 114.99 112.95 110.64 116.82 118.46	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96 53.60	INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55%	0.00% -0.16% -0.17% -0.15% -0.14% -0.14% -0.14% -0.15% -0.15% -0.28% -0.15% -0.28% -0.53% -0.40% -0.25% -0.76% sion (Pitch) Pitch 0.00% 0.12% 0.09% 0.10% 0.09% 0.10% 0.09% 0.10% 0.09% 0.09% 0.10% 0.09%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 ch Class 12.0 2.6 8.8 12.0 5.0 1.0 5.0 1.0 5.0 1.0 5.0 1.0 5.0 1.0 5.0 6.0 7.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6
NHN 1 8 3 3 7 12 12 10 9 5 13 6 6 11 1 2 2 4 4 4 4 13 2 2 10 10 12 2 13 3 11 1 19 17 7 10 12 2 13 13 8 11 11 19 17 18 16 14 20 22 15 14 15 16 14 17 17 18 16 16 14 20 22 15 16 17 17 18 16 16 17 17 18 16 16 17 17 18 18 16 16 17 17 18 18 16 17 17 17 18 18 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.96% 0.73% 11.66% 0.73% Amp Ratio 107.51% 100.00% 68.86% 11.46% 10.20% 9.63% 9.55% 9.21% 6.89% 9.55% 9.21% 6.89% 0.57% 4.44% 3.93% 3.87% 2.32% 0.92% 0.57%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82 118.46	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96 53.60 Interval from Fundamental 0.00	INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC A Notes LOUDER THAN FUNDAMENTAL All harmonic partials quite sharp	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.56% -0.84% -1.14% -0.56% -11.02% -3.10% -15.11% -1.50% -4.15% Diversion (Hz) Diver 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.28% -0.28% -0.26% -0.76% sion (Pitch) Pit 0.00% 0.09% 0.08%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 6.0 1.3 6.8 11.5
NHN 1 8 3 3 7 7 12 12 10 9 5 5 13 3 6 6 11 1 2 2 4 4 4 4 4 13 2 2 13 3 9 9 17 7 12 2 2 13 8 8 11 1 1 1 1 2 2 2 1 13 8 8 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1	Frequency	100.00% 68.84% 46.552% 46.63% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.99% 1.26% 0.114% 0.90% 0.86% 0.73% Amp Ratio 107.51% 100.00% 53.77% 47.47% 46.80% 12.62% 10.20% 9.63% 9.55% 9.21% 6.89% 5.67% 2.32% 0.57%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 110.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82 118.46	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96 53.60 Interval from Fundamental 0.00 33.57	INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.76% -0.84% -1.14% -0.56% 11.02% -3.10% -15.11% 1.50% -4.15% Diversion (Hz) Diver 0.00% 0.62% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.28% -0.15% -0.28% -0.26% -0.76% sion (Pitch) -0.12% -0.25% -0.76% sion (Pitch) -0.10% -0.	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 12.0 6.0 7.3 6.8 11.5 ch Class 12.0 4.9 8.8 12.0 4.9 7.0 2.6 8.8 12.0 5.0 1.4 5.0 1.5 ch Class 10.5
NHN 1 8 3 3 7 12 12 10 9 5 13 6 6 11 1 2 2 4 4 4 4 13 2 2 10 10 12 2 13 3 11 1 19 17 7 10 12 2 13 13 8 11 11 19 17 18 16 14 20 22 15 14 15 16 14 17 17 18 16 16 14 20 22 15 16 17 17 18 16 16 17 17 18 16 16 17 17 18 18 16 16 17 17 18 18 16 17 17 17 18 18 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Frequency	100.00% 68.84% 65.52% 46.63% 42.88% 39.72% 32.97% 21.31% 17.27% 9.42% 0.96% 0.73% 11.66% 0.73% Amp Ratio 107.51% 100.00% 68.86% 11.46% 10.20% 9.63% 9.55% 9.21% 6.89% 9.55% 9.21% 6.89% 0.57% 4.44% 3.93% 3.87% 2.32% 0.92% 0.57%	58.14 93.99 77.03 91.70 101.03 97.87 96.05 85.85 102.42 89.03 99.51 69.95 82.05 83.96 102.00 67.31 102.81 95.45 Pitch (MIDI #) 83.97 64.86 92.83 95.97 88.95 102.99 98.64 104.81 107.98 76.99 109.35 100.96 106.47 115.93 114.00 114.99 112.95 110.64 116.82 118.46	0.00 35.85 18.89 33.55 42.89 39.73 37.91 27.70 44.27 30.89 41.37 11.80 23.90 25.81 43.86 9.16 44.66 37.31 Interval from Fundamental 19.11 0.00 27.97 31.11 24.09 38.13 33.78 39.95 43.12 12.13 44.49 36.10 41.61 51.07 49.14 50.13 48.09 45.78 51.96 53.60 Interval from Fundamental 0.00	INHARMONIC	0.00% -0.86% -0.77% -0.77% -0.77% -0.77% -0.77% -0.77% -0.93% -0.77% -0.56% -0.84% -1.14% -0.56% -11.02% -3.10% -15.11% -1.50% -4.15% Diversion (Hz) Diver 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55%	0.00% -0.16% -0.17% -0.15% -0.13% -0.14% -0.19% -0.13% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.28% -0.28% -0.26% -0.76% sion (Pitch) Pit 0.00% 0.09% 0.08%	10.1 10.0 5.0 7.7 5.0 1.9 0.0 1.8 6.4 5.0 3.5 9.9 10.0 12.0 6.0 6.0 1.3 6.8 11.5

9	2109.087 0.0140484	39.47%	96.13	37.95		-0.51%	-0.09%	0.1
8	1872.493 0.01238983	34.81%	94.07	35.89		-0.63%	-0.12%	10.1
5	1164.443 0.00842744	23.68%	85.85	27.67		-1.13%	-0.23%	1.8
6	1402.217 0.00759411	21.33%	89.07	30.88		-0.78%	-0.15%	5.1
10	2337.260 0.00501366	14.09%	97.91	39.73		-0.77%	-0.14%	1.9
2	463,996 0.00402686	11.31%	69.92	11.74		-1.51%	-0.37%	9.9
11	2577,267 0.00397055	11.15%	99.60	41.42		-0.53%	-0.09%	3.6
4	1024.597 0.00274562	7.71%	83.63	25.45	INHARMONIC	8.75%	1.77%	11.6
2	560.165 0.00107996	3.03%	73.18	15.00	INHARMONIC	18.91%	4.27%	1.2
4	938.482 0.00105155	2.95%	82.11	23.93		-0.39%	-0.08%	10.1
9	2175.087 0.0008591	2.41%	96.67	38.48	INHARMONIC	2.60%	0.46%	0.7
2	397.453 0.00085048	2.39%	67.24	9.06	INHARMONIC	-15.63%	-4.19%	7.2
5	1090.650 0.00074763	2.10%	84.72	26.53	INHARMONIC	-7.39%	-1.55%	0.7
11	2644.757 0.00065586	1.84%	100.05	41.87	INHARMONIC	2.07%	0.36%	4.1
7	1701.007 0.00064411	1.81%	92.41	34.23	INHARMONIC	3.16%	0.59%	8.4
9	2207.087 0.00054272	1.52%	96.92	38.74	INHARMONIC	4.11%	0.72%	0.9
8	1774.763 0.00049521	1.39%	93.14	34.96	INHARMONIC	-5.82%	-1.10%	9.1
6	1310.573 0.00048791	1.37%	87.90	29.71	INHARMONIC	-7.27%	-1.46%	3.9
6	1498.007 0.000411274	1.16%	90.21	32.03	INHARMONIC	5.99%	1.13%	6.2
10	2407.400 0.00035353	0.99%	98.42	40.24	INHARMONIC	2.20%	0.38%	2.4
8	1940.723 0.00034988	0.98%	94.69	36.51	INHARMONIC	2.99%	0.54%	10.7
9	2033.717 0.00033073	0.93%	95.50	37.32	INHARMONIC	-4.07%	-0.75%	11.5
10	2275.030 0.00027416	0.77%	97.44	39.26	INHARMONIC	-3.42%	-0.61%	1.4
4	850.559 0.00026719	0.75%	80.41	22.23	INHARMONIC	-9.73%	-2.16%	8.4
11	2495.947 0.000249011	0.70%	99.05	40.87	INHARMONIC	-3.67%	-0.65%	3.0
12	2732.287 0.00023077	0.65%	100.61	42.43	INHARMONIC	-3.34%	-0.58%	4.6

Sound 33	Clarion - Stace	cato – Eb							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	311.123	0.08687437	100.00%	63.00	0.00	sample is very short	0.00%	0.00%	3.0
5	1552.037	0.02299877	26.47%	90.82	27.82		-0.23%	-0.04%	6.8
6	1766.403	0.01514833	17.44%	93.06	30.06	INHARMONIC	-5.37%	-1.02%	9.1
6	1942.180	0.01232215	14.18%	94.71	31.71	INHARMONIC	4.04%	0.73%	10.7
4	1238.480	0.00972815	11.20%	86.92	23.92		-0.48%	-0.10%	2.9
7	2168.843	0.00952268	10.96%	96.62	33.62		-0.41%	-0.07%	0.6
3	926.615	0.00946531	10.90%	81.89	18.89		-0.72%	-0.15%	9.9
5		0.00915688	10.54%	91.75	28.75	INHARMONIC	5.26%	0.98%	7.7
2		0.00875253	10.07%	71.92	8.92	INHARMONIC	-16.29%	-4.11%	11.9
2		0.00874531	10.07%	74.87	11.87		-0.72%	-0.17%	2.9
3	1032.587	0.0083349	9.59%	83.77	20.77	INHARMONIC	10.63%	2.13%	11.8
5	1463.127	0.0058835	6.77%	89.80	26.80	INHARMONIC	-5.95%	-1.17%	5.8
6		0.00558729	6.43%	95.15	32.15	INHARMONIC	6.72%	1.20%	11.1
7		0.00492216	5.67%	95.87	32.88	INHARMONIC	-4.59%	-0.84%	11.9
6		0.00408537	4.70%	94.05	31.05		0.15%	0.03%	10.0
4		0.00396226	4.56%	85.66	22.67	INHARMONIC	-7.42%	-1.53%	1.7
4	1379.403	0.00393335	4.53%	88.78	25.78	INHARMONIC	10.84%	2.05%	4.8
8			4.46%	98.93	35.93		-0.38%	-0.07%	2.9
4	1328.937		3.47%	88.14	25.14	INHARMONIC	6.79%	1.31%	4.1
2		0.00295231	3.40%	77.59	14.59	INHARMONIC	16.12%	3.45%	5.6
8		0.00205735	2.37%	98.30	35.30	INHARMONIC	-3.97%	-0.71%	2.3
8	2581.020	0.0017643	2.03%	99.63	36.63	INHARMONIC	3.70%	0.63%	3.6
7		0.00158231	1.82%	97.47	34.47	INHARMONIC	4.64%	0.81%	1.5
3		0.00154445	1.78%	79.95	16.95	INHARMONIC	-11.25%	-2.52%	8.0
3	785.729	0.00128967	1.48%	79.04	16.04	INHARMONIC	-15.82%	-3.63%	7.0

Sound 34	Clarion - Stac	cato – high Bb)						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	463.072	0.1161166	100.00%	69.88	0.00		0.00%	0.00%	9.9
2	928.241	0.03888337	33.49%	81.92	12.04		0.23%	0.05%	9.9
3	1388.667	0.02859607	24.63%	88.90	19.01		-0.04%	-0.01%	4.9
5	2314.803	0.01660387	14.30%	97.74	27.86		-0.02%	0.00%	1.7
4		0.01482848	12.77%	93.78	23.89		-0.61%	-0.11%	9.8
11		0.01005424	8.66%	111.38	41.50		-0.09%	-0.01%	3.4
10	4618.493	0.00989857	8.52%	109.70	39.82		-0.26%	-0.04%	1.7
9	4159.597	0.0080852	6.96%	107.89	38.01		-0.19%	-0.03%	11.9
8		0.00594894	5.12%	105.89	36.01		0.05%	0.01%	9.9
12		0.00423195	3.64%	112.90	43.02		-0.02%	0.00%	4.9
13		0.00369596	3.18%	114.29	44.40		-0.03%	0.00%	6.3
6		0.00366016	3.15%	100.83	30.95		-0.42%	-0.07%	4.8
14		0.00336776	2.90%	115.56	45.67		-0.08%	-0.01%	7.6
7		0.00167535	1.44%	103.54	33.66		-0.16%	-0.03%	7.5
15		0.00123358	1.06%	116.78	46.90		0.08%	0.01%	8.8
4		0.00104123	0.90%	95.49	25.60	INHARMONIC	9.68%	1.70%	11.5
5		0.00094908	0.82%	96.28	26.40	INHARMONIC	-8.11%	-1.50%	0.3
2		0.00089527	0.77%	83.61	13.73	INHARMONIC	10.50%	2.11%	11.6
6		0.00064717	0.56%	102.02	32.14	INHARMONIC	6.69%	1.11%	6.0
4	1646.497	0.00052939	0.46%	91.85	21.96	INHARMONIC	-11.11%	-2.17%	7.8

Sound 35	Clarion - Lega	to – Bb							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
3	699.193	0.02649237	127.13%	77.02	18.89	LOUDER THAN FUNDAMENTAL	-0.76%	-0.17%	5.0
1	234.853	0.02083837	100.00%	58.13	0.00		0.00%	0.00%	10.1
5		0.01820137	87.35%	85.84	27.71	All harmonic partials quite flat	-0.91%	-0.18%	1.8
7		0.01303093	62.53%	91.67	33.54		-0.87%	-0.16%	7.7
8		0.00843648	40.49%	93.98	35.85		-0.86%	-0.16%	10.0
6	1398.677	0.00688486	33.04%	89.02	30.89		-0.74%	-0.14%	5.0
9			27.42%	96.02	37.89		-0.85%	-0.15%	0.0
2		0.00427535	20.52%	69.93	11.80		-1.16%	-0.29%	9.9
10		0.00383372	18.40%	97.83	39.70		-0.93%	-0.16%	1.8
4		0.00169479	8.13%	82.00	23.87		-0.77%	-0.16%	10.0
13		0.00163664	7.85%	102.39	44.26		-0.85%	-0.14%	6.4
12		0.00129124	6.20%	101.00	42.86		-0.89%	-0.15%	5.0
11		0.00119197	5.72%	99.50	41.37		-0.84%	-0.15%	3.5
16		0.00104481	5.01%	105.99	47.86		-0.80%	-0.13%	10.0
17		0.00091657	4.40%	107.03	48.90		-0.85%	-0.14%	11.0
18		0.00073553	3.53%	108.02	49.89		-0.85%	-0.14%	0.0
15		0.00072917	3.50%	104.86	46.73		-0.87%	-0.14%	8.9
22		0.00071289	3.42%	111.50	53.37		-0.83%	-0.13%	3.5
24		0.00061512	2.95%	113.00	54.87		-0.85%	-0.13%	5.0
21	4890.893		2.59%	110.69	52.56		-0.83%	-0.13%	2.7
23	5355.603		2.39%	112.27	54.13		-0.85%	-0.13%	4.3
14		0.00043739	2.10%	103.67	45.53		-0.88%	-0.15%	7.7
19	4422.127	0.00040153	1.93%	108.95	50.82		-0.90%	-0.14%	0.9

27	6287.967 0.00033629	1.61% 115	.04 56.91		-0.84%	-0.13%	7.0
25	5823.417 0.00033437	1.60% 113	.72 55.58	3	-0.82%	-0.12%	5.7
20	4654.780 0.0003027	1.45% 109	.84 51.71		-0.90%	-0.14%	1.8

Sound 36	Clarion - Lega	ato – C							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	258.603	0.05848243	100.00%	59.80	0.00	possible anomaly due to software bug	0.00%	0.00%	11.8
4	1034.483	0.0276827	47.34%	83.80	24.00	but difficult to tell	0.01%	0.00%	11.8
3		0.02706887	46.29%	78.82	19.02		0.00%	0.00%	6.8
6		0.02226143		90.82	31.02		0.00%	0.00%	6.8
7		0.01212997	20.74%	93.49	33.69		0.01%	0.00%	9.5
8			19.82%	95.80	36.00		0.00%	0.00%	11.8
5		0.00995498	17.02%	87.66	27.86		0.00%	0.00%	3.7
12		0.00681714	11.66%	102.83	43.03		0.06%	0.01%	6.8
2		0.00534089	9.13%	71.80	12.00		0.01%	0.00%	11.8
9		0.00530359	9.07%	97.85	38.05		0.09%	0.02%	1.9
10		0.00333837	5.71%	99.68	39.88		0.08%	0.01%	3.7
11		0.00308567	5.28%	101.32	41.52		0.06%	0.01%	5.3
22		0.00204277	3.49%	113.33	53.53		0.10%	0.02%	5.3
15		0.00187095	3.20%	106.69	46.89		0.05%	0.01%	10.7
20		0.00160439	2.74%	111.67	51.88		0.07%	0.01%	3.7
13		0.00153084	2.62%	104.22	44.43		0.12%	0.02%	8.2
23		0.00133176	2.28%	114.10	54.30		0.09%	0.01%	6.1
21		0.00126503	2.16%	112.52	52.73		0.10%	0.02%	4.5
14		0.00113968	1.95%	105.49	45.70		0.04%	0.01%	9.5
16			1.90%	107.81	48.02		0.09%	0.01%	11.8
19		0.00094173	1.61%	110.79	50.99		0.07%	0.01%	2.8
24		0.00090527	1.55%	114.83	55.04		0.09%	0.01%	6.8
17	4400.087		1.00%	108.86	49.06		0.09%	0.01%	0.9
18		0.00057172	0.98%	109.85	50.05		0.09%	0.01%	1.9
26		0.00026548	0.45%	116.22	56.42		0.11%	0.02%	8.2
25	6472.663	0.00026175	0.45%	115.55	55.75		0.12%	0.02%	7.5

	Clarion - Lega								
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	291.951	0.07594237	100.00%	61.90	0.00	order of partial prominence is	0.00%		
4	1172.790	0.02094797	27.58%	85.97	24.07	comparable to sound 36, suggesting	0.43%	0.09%	2.0
3	880.957	0.02005303	26.41%	81.02	19.12	the data for sound 36 is accurate	0.58%	0.12%	9.0
7	2050.357	0.01418085	18.67%	95.64	33.74		0.33%	0.06%	11.6
5	1467.283	0.01187185	15.63%	89.85	27.95		0.52%	0.10%	5.9
6	1758.423	0.01004853	13.23%	92.98	31.09		0.38%	0.07%	9.0
2	585.750	0.00575653	7.58%	73.95	12.05		0.32%	0.07%	2.0
10	2932.223	0.00317256	4.18%	101.84	39.94		0.44%	0.07%	5.8
8	2343.890	0.00259935	3.42%	97.96	36.06		0.35%	0.06%	2.0
9	2638.180	0.00208521	2.75%	100.01	38.11		0.40%	0.07%	4.0
12	3519.433	0.00173667	2.29%	105.00	43.10		0.46%	0.08%	9.0
13	3811.187	0.00153312	2.02%	106.38	44.48		0.42%	0.07%	10.4
19	5567.657	0.00109499	1.44%	112.94	51.04		0.37%	0.06%	4.9
18	5275.753	0.0009997	1.32%	112.01	50.11		0.39%	0.06%	4.0
16	4687.907	0.00085462	1.13%	109.96	48.06		0.36%	0.06%	2.0
21	6154.553	0.00075696	1.00%	114.67	52.77		0.38%	0.06%	6.7
17	4983.777	0.00070472	0.93%	111.02	49.12		0.42%	0.06%	3.0
20	5861.013	0.00063297	0.83%	113.83	51.93		0.38%	0.06%	5.8
11	3225.883	0.00061464	0.81%	103.49	41.59		0.45%	0.07%	7.5
14	4101.993	0.00055299	0.73%	107.65	45.75		0.36%	0.06%	11.6
15	4395.563	0.00043726	0.58%	108.85	46.95		0.37%	0.06%	0.8

Sound 38	Clarion – Lega	to – Eb							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	311.030	0.10146393	100.00%	62.99	0.00		0.00%	0.00%	3.0
3	927.623	0.01588303	15.65%	81.91	18.92		-0.59%		
5	1550.017	0.01404283	13.84%	90.80	27.81		-0.33%		
7	2168.723	0.00964885	9.51%	96.62	33.62		-0.39%	-0.07%	
8	2479.747	0.00631409	6.22%	98.94	35.94		-0.34%		
4	1238.247	0.00557976	5.50%	86.91	23.92		-0.47%	-0.09%	
10	3100.477	0.00320156	3.16%	102.80	39.81		-0.32%	-0.05%	
2	620.589	0.00281478	2.77%	74.95	11.96		-0.24%	-0.05%	3.0
6	1859.113	0.00223624	2.20%	93.95	30.95		-0.38%	-0.07%	9.9
11	3411.447	0.00221872	2.19%	104.46	41.46		-0.29%		
18	5577.737	0.00177538	1.75%	112.97	49.97		-0.37%	-0.06%	5.0
12	3718.490	0.00160153	1.58%	105.95	42.96		-0.37%		
17	5266.527	0.00150122	1.48%		48.98		-0.40%		
13	4027.010	0.0010533	1.04%	107.33	44.33		-0.41%	-0.07%	11.3
20	6199.797	0.00098094	0.97%	114.80	51.81		-0.33%	-0.05%	6.8
14	4339.023	0.00083442	0.82%	108.62	45.63		-0.35%	-0.06%	
16	4959.303	0.00073319	0.72%	110.93	47.94		-0.35%	-0.05%	
15	4650.210	0.0006799	0.67%	109.82	46.83		-0.33%	-0.05%	
21		0.00051645	0.51%	115.64	52.64		-0.37%	-0.06%	
19	5888.757	0.00048149	0.47%	113.91	50.91		-0.35%	-0.05%	5.9

NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	346.122		100.00%	64.85	0.00		0.00%	0.00%	
3	1043.973	0.06440837	90.08%	83.96	19.11		0.54%	0.11%	12.0
6	2088.487	0.01874817	26.22%	95.96	31.12		0.57%	0.10%	12.0
5	1739.820	0.01773517	24.81%	92.80	27.96		0.53%	0.10%	8.8
4	1390.827	0.01131117	15.82%	88.92	24.08		0.46%	0.09%	4.9
7	2436.667	0.00570177	7.97%	98.63	33.79		0.57%	0.10%	2.6
9	3130.813	0.00360737	5.05%	102.97	38.13		0.50%	0.08%	7.0
2	697.957	0.00351657	4.92%	76.99	12.14		0.83%	0.19%	5.0
10	3475.553	0.00280329	3.92%	104.78	39.93		0.41%	0.07%	8.8
13	4522.100	0.0027271	3.81%	109.34	44.49		0.50%	0.08%	1.3
14	4872.663	0.00244997	3.43%	110.63	45.78		0.56%	0.09%	2.6
18	6262.587	0.00217883	3.05%	114.97	50.13		0.52%	0.08%	7.0
16		0.00216617	3.03%	112.93	48.09		0.52%	0.08%	
12	4171.583	0.00197624	2.76%	107.94	43.09		0.44%	0.07%	
15	5218.520	0.00149773	2.09%	111.82	46.97		0.51%		
19		0.00137983	1.93%	115.91	51.07		0.52%	0.08%	
11	3825.690	0.0013444	1.88%	106.44	41.60		0.48%	0.08%	10.4
17	5915.113	0.00110661	1.55%	113.99	49.14		0.53%	0.08%	6.0
8	2782.690	0.00104382	1.46%	100.93	36.09		0.50%	0.08%	4.9

Sound 40	Clarion – Legato – G							
NHN 1	Frequency Amplitude 389.382 0.06122567	Amp Ratio 100.00%	Pitch (MIDI #) 66.88	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) P 0.00%	itch Class 6.9
3	1173.613 0.0534063	87.23%	85.98	19.10		0.47%	0.09%	2.0
4 2	1564.663 0.01731913 784.125 0.01455123	28.29% 23.77%	90.96 79.00	24.08 12.12		0.46% 0.69%	0.09% 0.15%	7.0
5	1957.667 0.01190756	19.45%	94.84	27.96		0.55%	0.10%	7.0 10.8
6	2347.163 0.0076568 5085.753 0.00739597	12.51% 12.08%	97.98	31.10 44.49		0.47% 0.47%	0.08% 0.07%	2.0 3.4
13 9	3520.920 0.00582648	9.52%	111.37 105.00	38.12		0.47%	0.08%	9.0
16 10	6259.023 0.00319802 3912.397 0.00297774	5.22% 4.86%	114.96 106.83	48.08 39.95		0.46% 0.48%	0.07% 0.08%	7.0 10.8
8	3129.427 0.00290707	4.75%	102.96	36.08		0.46%	0.08%	7.0
15 12	5869.723 0.00251823 4696.567 0.00229302	4.11% 3.75%	113.85 109.99	46.97 43.11		0.50% 0.51%	0.08% 0.08%	5.9 2.0
7	2739.033 0.0021147	3.45%	100.66	33.77		0.49%	0.08%	4.7
11 14	4306.043 0.00131105 5477.080 0.00098789	2.14% 1.61%	108.49 112.65	41.61 45.77		0.53% 0.47%	0.08% 0.07%	0.5 4.7
17	6650.410 0.00048553	0.79%	116.01	49.13		0.47%	0.07%	8.0
3	1027.113 0.00030425	0.50%	83.68	16.79	INHARMONIC	-12.07%	-2.59%	11.7
Sound 41	Clarian Lagata A							
NHN 1	Clarion – Legato – A Frequency Amplitude 440.756 0.08592607	Amp Ratio 100.00%	Pitch (MIDI #) 69.03	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) P	ritch Class 9.0
4	1761.273 0.01903847	22.16%	93.01	23.98		-0.10%	-0.02%	9.0
2 3	879.709 0.01665523 1320.520 0.01405786	19.38% 16.36%	80.99 88.03	11.96 19.00		-0.20% -0.13%	-0.04% -0.03%	9.0 4.0
5	2200.640 0.00512355	5.96%	96.87	27.84		-0.14%	-0.03%	0.9
6 11	2643.017 0.00341795 4839.873 0.00232782	3.98% 2.71%	100.04 110.51	31.01 41.48		-0.06% -0.17%	-0.01% -0.03%	4.0 2.5
7	3082.220 0.00193049	2.25%	102.70	33.67		-0.10%	-0.02%	6.7
12 8	5282.463 0.0017766 3515.560 0.00150074	2.07% 1.75%	112.03 104.98	43.00 35.95		-0.13% -0.30%	-0.02% -0.05%	4.0 9.0
13	5721.277 0.00145461	1.69%	113.41	44.38		-0.15%	-0.02%	5.4
9 10	3958.793 0.00133948 4401.330 0.00110141	1.56% 1.28%	107.03 108.87	38.00 39.84		-0.20% -0.14%	-0.03% -0.02%	11.0 0.9
15	6600.847 0.00098067	1.14%	115.88	46.86		-0.16%	-0.02%	7.9
14	6164.373 0.00072966	0.85%	114.70	45.67		-0.10%	-0.02%	6.7
Sound 42	Altissimo – pp – low							
NHN 1	Frequency Amplitude 527.868 0.05634833	Amp Ratio 100.00%	Pitch (MIDI #) 72.15	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	rsion (Pitch) P	itch Class 0.2
2	1055.723 0.01826023	32.41%	84.15	12.00		0.00%	0.00%	0.2
3 4	1583.400 0.01469065 2111.300 0.00445366	26.07% 7.90%	91.17 96.15	19.02 24.00		-0.01% -0.01%	0.00% 0.00%	7.2 0.2
5	2639.550 0.00050369	0.89%	100.02	27.86		0.01%	0.00%	4.0
Sound 43	Altissimo – pp – high Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	rsion (Pitch)	itch Class
1	911.212 0.08336803	100.00%	81.60	0.00		0.00%	0.00%	9.6
2 4	1820.503 0.00758437 3642.953 0.0058492	9.10% 7.02%	93.59 105.59	11.98 23.99		-0.11% -0.05%	-0.02% -0.01%	9.6 9.6
3	2731.860 0.00366092	4.39%	100.61	19.01		-0.06%	-0.01%	4.6
5 6	4556.540 0.00157984 5463.487 0.00144217	1.90% 1.73%	109.47 112.61	27.86 31.01		0.01% -0.07%	0.00% -0.01%	1.5 4.6
7	6375.020 0.0007617	0.91%	115.28	33.68		-0.05%	-0.01%	7.3
12 11	10931.033 0.00066455 10019.777 0.00062169	0.80% 0.75%	124.62 123.11	43.01 41.51		-0.03% -0.04%	0.00%	4.6 3.1
8	7288.087 0.00043948			36.00			0.00%	J. I
	7200.007	0.53%	117.60	30.00		-0.02%	0.00% 0.00%	9.6
Cound 44			117.60	30.00		-0.02%		
NHN	Altissimo – ff – low Frequency Amplitude	0.53% Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	0.00%	9.6
	Altissimo – ff – Iow	0.53%			Notes LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL		0.00%	9.6
NHN 4 2 1	Altissimo – ff – low Frequency 2093.103 1045.690 0.15353767 525.506 0.11054667	0.53% Amp Ratio 151.70% 138.89% 100.00%	Pitch (MIDI#) 96.00 83.99 72.07	Interval from Fundamental 23.93 11.91 0.00	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% 0.00%	0.00% rsion (Pitch) P -0.08% -0.10% 0.00%	9.6 Pitch Class 0.0 12.0 0.1
NHN 4 2	Altissimo – ff – low Frequency Amplitude 2093.103 0.16770133 1045.690 0.15353767 525.506 0.11054667 1571.180 0.0850959 3140.543 0.02239117	0.53% Amp Ratio 151.70% 138.89%	Pitch (MIDI#) 96.00 83.99	Interval from Fundamental 23.93 11.91	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversion (Hz) 0.42% -0.51%	0.00% rsion (Pitch) P -0.08% -0.10%	9.6 Fitch Class 0.0 12.0
NHN 4 2 1 3 6 5	Altissimo – ff – low Frequency Amplitude 2093.103 0.16770133 1045.690 0.15353767 1571.180 0.0850959 3140.543 0.02239117 2616.820 0.02224847	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13%	Pitch (MIDI#) 96.00 83.99 72.07 91.04 103.03 99.87	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% 0.00% -0.34% -0.40%	0.00% rsion (Pitch) P -0.08% -0.10% 0.00% -0.06% -0.07% -0.07%	9.6 Pitch Class 0.0 12.0 0.1 7.0 7.0 3.9
NHN 4 2 1 3 6	Altissimo – ff – low Frequency Amplitude 2093.103 0.16770133 1045.690 0.15353767 525.506 0.1054667 1571.180 0.0850959 3140.543 0.02239417 2616.820 0.02224847 5235.497 0.02286613	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.37%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.07% -0.06%	9.6 Fitch Class 0.0 12.0 0.1 7.0 3.9 3.9
NHN 4 2 1 3 6 5 10 9 8	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15333767 525.506 0.11054867 1571.180 0.0850959 3140.543 0.02239117 2616.820 0.02224847 5235.497 0.02086613 4711.760 0.01985097 4186.177 0.01856097	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 16.79%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 7.0 3.9 2.0 0.0
NHN 4 2 1 3 6 5 10 9	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15353767 525.506 0.1054667 1571.180 0.0850959 3140.543 0.02239417 2616.820 0.02224847 5235.497 0.02286613 4711.760 0.0198939 4186.177 0.01856097 3664.267 0.00901907	0.53% Amp Ratio 151.70% 138.89% 100.00% 20.25% 20.13% 18.88% 18.00%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70	23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.06% -0.07% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9
NHN 4 2 1 3 6 5 10 9 8 7 11 12	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15353767 525.506 0.11054667 1571.80 0.0850959 3140.543 0.02239117 2616.820 0.02224847 5235.497 0.0286613 4711.760 0.01856097 3664.267 0.00901907 5757.407 0.00497035 6281.087 0.00497035	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.13% 18.88% 18.00% 16.79% 8.16% 4.50% 4.50%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.40%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 7.0 3.9 3.9 2.0 0.0 9.7 5.5
NHN 4 2 1 3 6 5 10 9 8 7 11	Altissimo – ff – low Frequency 2093.103 1045.690 525.506 0.11054667 1571.180 0.0850959 3140.543 0.02224847 5235.497 0.00286613 4711.760 0.019839 4186.177 3664.267 0.00901907 5757.407 0.00497035	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 16.79% 8.16% 4.50%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	0.00% rsion (Pitch) P -0.08% -0.10% -0.00% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06%	9.6 0.0 12.0 0.1 7.0 3.9 2.0 0.0 9.7
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15353767 525.506 0.11054667 1571.80 0.0850959 3140.543 0.02239117 2616.820 0.02224847 5235.497 0.0228917 4711.760 0.01856097 3664.267 0.00901907 5757.407 0.00497035 6281.087 0.0025853 8375.857 0.00160986 9421.727 0.00153931 9947.057 0.00114605	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 16.79% 4.50% 2.34% 1.46%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 2.0 0.0 9.7 5.5
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.115353767 525.506 0.11054667 1571.180 0.0850959 3140.543 0.02239117 2616.820 0.02224847 5235.497 0.02086613 4711.760 0.0198939 4186.177 0.01856097 3664.267 0.00901907 5757.407 0.00901907 5757.407 0.00901907 6281.087 0.0025853 8375.887 0.00160986 9421.727 0.00153931 9947.057 0.00113605	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 4.50% 4.50% 4.50% 1.46% 1.39% 1.46% 1.39%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.40% -0.40% -0.38%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 7.0 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3
NHN 4 2 1 3 6 5 10 9 8 7 7 11 12 16 18 19 13	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15333767 1571.180 0.0850959 3140.543 0.02229417 2616.820 0.02224847 5235.497 0.0286613 4711.760 0.01856097 3664.267 0.00951907 3664.267 0.0095937 5757.407 0.00497035 6281.087 0.0025853 8375.857 0.00160986 9421.727 0.00153931 9947.057 0.00114805 6804.787 0.00111903	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 16.79% 8.16% 4.50% 2.34% 1.46% 1.46% 1.39% 1.01%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.40% -0.38% -0.39%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Otto Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1	Altissimo – ff – low Frequency 2093.103 1045.690 .1571.180 3140.543 .0.02239117 2616.820 .0.02239117 2616.820 .0.0223847 5235.497 .0.0286613 4711.760 .0.19839 4186.177 .3664.267 .0.0951907 5757.407 .0.0497035 6281.087 .0.025853 8375.857 .0.00160986 9421.727 .0.0153931 9947.057 .0.00114605 6804.787 .0.00111903	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.13% 18.00% 16.79% 8.16% 4.50% 2.34% 1.39% 1.04% 1.01% Amp Ratio 100.00%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00	LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.38% -0.40% -0.38% -0.39% -0.40% -0.38% -0.39% -0.40% -0.38% -0.39% -0.00%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15353767 525.506 0.11054667 3140.543 0.02239117 2616.820 0.02224847 4711.760 0.0856959 3440.547 0.01856097 3664.267 3664.267 3664.267 0.00901907 5757.407 0.00901907 5757.407 0.00901907 5757.407 0.00901907 5757.407 0.00901907 5757.407 0.00901907 5757.407 0.00901907 5757.407 0.0011903	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 16.79% 2.34% 4.50% 1.46% 1.39% 1.01%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.39% -0.40% -0.38% -0.39%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 2.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5	Altissimo – ff – low Frequency 2093.103 1045.690 0.15333767 525.506 0.11054667 1571.180 0.0850959 3140.543 0.022239117 2616.820 0.02224847 5235.497 0.02286613 4711.760 0.01856097 3664.267 0.00199037 3664.267 0.00199037 5757.407 0.00497035 6281.087 0.0025853 8375.857 0.00114805 6804.787 0.00119933 9947.057 0.00114805 6804.787 0.00111903 Altissimo – ff – high Frequency 904.345 0.18563567 3617.977 0.06104767 1809.433 0.06104767 1809.433 0.06104767	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.80% 16.79% 8.16% 4.50% 2.34% 1.46% 1.46% 1.39% 1.04% 1.01% Amp Ratio 100.00% 32.89% 32.89% 31.96% 22.93%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.40% -0.38% -0.39% Diversion (Hz) Diver 0.00% 0.02% 0.04% 0.02%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 2.0 3.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2	Altissimo – ff – low Frequency 2093.103 20.16770133 20.165506 20.1054667 20.1054667 20.1054667 20.1054667 20.1054667 20.1054667 20.1054667 20.1054667 20.1054667 20.105467 20.1055467 20.1055467 20.1055467 20.105467 20.105467 20.105467 20.1055467 20.105467	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 18.79% 4.50% 2.34% 1.46% 1.39% 1.01% Amp Ratio 100.00% 32.89% 31.96%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6 7	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15333767 525.56 0.11054667 1571.180 0.0850959 3140.543 0.02229417 5235.497 0.0286613 4711.760 0.01856097 3664.267 0.00951907 3664.267 0.00951907 3664.267 0.00951907 3664.270 0.00951907 3664.270 0.00951907 3664.270 0.00198039 471.767 0.00497035 6281.087 0.005853 8375.857 0.00114805 6804.787 0.00114805 6804.787 0.00114903 Altissimo – ff – high Frequency 944.345 0.18563567 3617.977 0.06104767 1809.433 0.0425702 2713.780 0.02561407 5427.260 0.00762797	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.80% 4.50% 4.50% 6.1.39% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 13.80% 9.50% 3.08%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48 109.34 100.50 112.50 112.50 115.17	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02 33.70	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver -0.42% -0.51% -0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.40% -0.39% -0.40% -0.38% -0.39% -0.40% -0.38% -0.39%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.4 4.4 4.5 4.5
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6	Altissimo – ff – low Frequency 2093.103 1045.690 3140.543 3140.543 3140.543 3140.543 3140.543 30.022238117 2616.820 0.02224847 5235.497 0.0286613 4711.760 0.019839 4186.177 3664.267 0.01856097 3664.267 0.00497035 6281.087 0.00497035 681.087 0.00159931 9947.057 0.00114605 6804.787 0.00111903 Altissimo – ff – high Frequency 904.345 3617.977 0.06104767 3617.977 0.06104767 3617.977 0.06104767 1809.433 0.058533 4522.783 0.06104767 3617.977 0.06104767 3617.977 0.06104767 3617.977 0.06104767 3617.977 0.06104767 3617.973 0.02561407	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.80% 18.00% 14.60% 2.34% 1.01% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 13.80% 9.50%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48 109.34 100.50 112.50	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversion (Hz) 0.42% -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.37% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.40% -0.39% Diversion (Hz) Diversion (Hz) Diversion (Hz) 0.02% 0.02% 0.02% 0.03% 0.02%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6 6 7 7 8 9 12	Altissimo – ff – low Frequency 2093.103 0.16770133 1045.690 0.15333767 525.506 0.11054667 1571.80 0.0850959 3140.543 0.02223417 2616.820 0.02224847 5235.497 0.02286613 4711.760 0.0185097 3664.267 0.0091907 5757.407 0.00497035 6281.087 0.0025853 8375.857 0.0025853 8375.857 0.00114605 6804.787 0.00114605 6804.787 0.00114605 6804.787 0.00114605 6804.787 0.00114605 6804.787 0.00114605 6804.787 0.00114605 6804.787 0.00114605 0.0014605 0.00114605 0.00114605 0.00114605 0.00114605 0.00114605 0.001	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 18.88% 18.00% 4.50% 2.34% 1.46% 1.39% 2.34% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 13.80% 9.50% 3.08% 1.77% 1.44% 1.28%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48 109.34 100.50 112.50 112.50 112.50 117.48 119.50 112.4.49	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02 33.70 36.00 38.03 43.02	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversion (Hz) Diversion (Hz) 0.042% -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.39% -0.40% -0.38% -0.40% -0.38% -0.39% Diversion (Hz) Divers	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00% -0.00%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 2.0 3.0 8.4
NHN 4 2 1 3 6 5 10 9 8 7 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6 7 8 8 9 12 11 10	Altissimo – ff – low Frequency 2093.103 1045.690 0.16770133 1045.690 0.15333767 525.506 0.11054667 1571.180 0.0850959 3140.543 0.022238147 5235.497 0.0023814 4711.760 0.01856097 3664.267 0.00199037 5757.407 0.00497035 6281.087 0.0025853 8375.857 0.00153931 9947.057 0.00114605 6804.787 0.0011903 Altissimo – ff – high Frequency 904.345 0.1866367 3617.977 0.06104767 1809.433 0.0425702 2713.780 0.02561407 5427.260 0.01762797 6333.447 0.002581407 6427.260 0.01762797 6333.447 0.002581407 6427.260 0.01762797 6333.447 0.00571953 7235.910 0.002382047 8133.187 0.00267253 10852.433 0.00238101 9944.187 0.00233294	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.13% 18.88% 18.00% 4.50% 4.50% 1.46% 1.39% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 13.80% 9.50% 1.77% 1.44% 1.26% 1.26% 0.91%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48 109.34 100.50 112.50 115.17 117.48 119.50 124.49 122.98 121.32	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02 33.70 36.00 38.03 43.02 41.51 39.84	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversion (Hz) Diversion (Hz) 0.042% -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.40% -0.39% Diversion (Hz)	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.4 4.4 4.5 4.5 4.5 4.5 1.3 3.0
NHN 4 2 1 3 6 5 10 9 8 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6 6 7 8 9 9 11 10 10 13	Frequency Amplitude 2093.103 0.16770133 1045.690 0.165535767 525.506 0.11054667 0.15535767 0.15535767 0.055959 3140.543 0.022239117 0.0258613 0.02224847 0.02324847 0.0238614 0.023224847 0.0358613 0.01856097 0.045703 0.045703 0.045703 0.05853 0.0160986 0.045703 0.0045703 0.059593 0.0114605 0.045703 0.059593 0.059593 0.0114605 0.045703 0.059593 0.059593 0.059593 0.059593 0.059593 0.059593 0.059593 0.059593 0.059593 0.057655 0.057655 0	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.25% 20.13% 8.16% 4.50% 4.50% 1.39% 6.1.46% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 3.80% 3.08% 4.77% 1.44% 1.28% 1.28% 0.99%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 109.34 100.50 112.50 112.50 115.17 117.48 119.50 122.98 121.32 122.98	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02 33.70 36.00 38.03 43.02 41.51 39.84 44.40	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver 0.42% -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.38% -0.38% -0.39% Diversion (Hz) Diver 0.00% 0.02% 0.04% 0.02% 0.05% 0.02% 0.05% 0.02% -0.07% 0.00% -0.07% 0.00% -0.07% 0.00% -0.01% -0.05%	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.00% -0.00% -0.00% -0.00% -0.01% -0.00% -0.01% -0.02% -0.01%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 2.0 3.0 8.4 Pitch Class 9.5 9.5 1.3 4.5 7.2 9.5 1.5 1.5 1.5 1.5 3.0 3.0
NHN 4 2 1 3 6 5 10 9 8 7 7 11 12 16 18 19 13 Sound 45 NHN 1 4 2 5 3 6 7 8 8 9 12 11 10	## Altissimo - #F - low	0.53% Amp Ratio 151.70% 138.89% 100.00% 76.98% 20.13% 18.88% 18.00% 4.50% 4.50% 1.46% 1.39% 1.01% Amp Ratio 100.00% 32.89% 31.96% 22.93% 13.80% 9.50% 1.77% 1.44% 1.26% 1.26% 0.91%	Pitch (MIDI #) 96.00 83.99 72.07 91.04 103.03 99.87 111.87 110.05 108.00 105.70 113.52 115.03 120.01 122.04 122.98 116.41 Pitch (MIDI #) 81.47 105.48 93.48 109.34 100.50 112.50 115.17 117.48 119.50 124.49 122.98 121.32	Interval from Fundamental 23.93 11.91 0.00 18.96 30.95 27.79 39.80 37.97 35.93 33.62 41.44 42.95 47.93 49.97 50.91 44.34 Interval from Fundamental 0.00 24.00 12.01 27.87 19.02 31.02 33.70 36.00 38.03 43.02 41.51 39.84	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversion (Hz) Diversion (Hz) 0.042% -0.42% -0.51% 0.00% -0.34% -0.40% -0.41% -0.38% -0.43% -0.40% -0.40% -0.38% -0.40% -0.38% -0.40% -0.39% Diversion (Hz)	0.00% rsion (Pitch) P -0.08% -0.10% -0.06% -0.07% -0.06% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00% -0.01% -0.00%	9.6 Pitch Class 0.0 12.0 0.1 7.0 3.9 3.9 2.0 0.0 9.7 5.5 7.0 0.0 2.0 3.4 4.4 4.5 4.5 4.5 4.5 4.5 1.3 3.0

ound 46	Altissimo – Stac	ccato – C							
NHN	Frequency /	Amplitude		Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
1		0.09807193 0.04559107	100.00% 46.49%	72.14 91.12	0.00 18.99		0.00% -0.19%	0.00% -0.04%	0.1 7.1
4		0.04559107	35.27%	96.13	23.99		-0.19%	-0.01%	0.1
2	1053.923	0.03204157	32.67%	84.12	11.98		-0.09%	-0.02%	0.
5 10		0.01261949 0.01198513	12.87% 12.22%	99.95 111.96	27.81 39.82		-0.32% -0.24%	-0.06% -0.04%	3.9 4.0
9	4733.133	0.00894026	9.12%	110.13	37.99		-0.29%	-0.05%	2.
6		0.00548563	5.59%	103.11	30.97		-0.30%	-0.05%	7.
8 7	3679.597	0.00533736 0.00457833	5.44% 4.67%	108.08 105.77	35.94 33.63		-0.33% -0.34%	-0.05% -0.06%	0. 9.
11		0.00208356	2.12%	113.61	41.48		-0.21%	-0.03%	5.0
12		0.00178322	1.82%	115.13	43.00	IN ILLA DAGONIO	-0.14%	-0.02%	7.
3		0.001126498 0.00085369	1.15% 0.87%	92.79 89.48	20.65 17.35	INHARMONIC INHARMONIC	9.89% -9.21%	1.79% -1.84%	8. 5.
4	1958.723	0.0006957	0.71%	94.85	22.71	INHARMONIC	-7.16%	-1.34%	10.
9 13		0.00049338 0.0004137	0.50% 0.42%	109.43 116.51	37.29 44.37	INHARMONIC	-4.21% -0.18%	-0.68% -0.03%	1.4 8.5
10	0044.557	0.0004137	0.4270	110.51	44.57		-0.1070	-0.0370	0.
und 47	Altissimo – Stac	ccato – A							
NHN 1	Frequency 896.918	Amplitude 0.11474967	Amp Ratio 100.00%	Pitch (MIDI #) 81.33	Interval from Fundamental 0.00	Notes	Diversion (Hz) Diver	sion (Pitch) Pi	itch Class 9.:
2		0.1146191	99.89%	93.22	11.89		-0.61%	-0.11%	9.
4 5		0.03417553 0.0128294	29.78% 11.18%	105.30 109.16	23.97 27.83		-0.19% -0.21%	-0.03% -0.03%	9. 1.
6		0.0128294	7.08%	112.30	30.97		-0.30%	-0.05%	4.
3	2687.807	0.00612547	5.34%	100.33	19.00		-0.11%	-0.02%	4.
7 2		0.00409562 0.00144946	3.57% 1.26%	114.99 94.70	33.66 13.37	INHARMONIC	-0.19% 8.21%	-0.03% 1.46%	7. 10.
8		0.00142902	1.25%	117.29	35.96	MINIONIO	-0.22%	-0.03%	9.3
		_							
NHN	Altissimo – Lega Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Notes	Diversion (Hz) Diver		
1		0.08486883 0.04326183	100.00% 50.97%	69.87 81.88	0.00 12.00	very little diversion across	0.00% 0.02%	0.00% 0.00%	9. 9.
3	1388.263	0.02555567	30.11%	88.89	19.02	harmonic partials	0.00%	0.00%	4.9
4	1851.243	0.02530247	29.81%	93.88	24.00		0.01%	0.00%	9.
5 10		0.01629453 0.00447772	19.20% 5.28%	97.74 109.73	27.87 39.86		0.02% -0.03%	0.00% 0.00%	1. 1.
11		0.00447772	5.22%	111.38	41.51		-0.03%	0.00%	3.
9	4165.550	0.00411531	4.85%	107.92	38.04		0.02%	0.00%	11.
12		0.00410248	4.83%	112.89	43.02		-0.02%	0.00%	4.
7 6		0.00383064 0.00333717	4.51% 3.93%	103.56 100.89	33.69 31.02		0.01% 0.01%	0.00% 0.00%	7. 4.
14			2.67%	115.56	45.69		-0.01%	0.00%	7.
15			2.01%	116.75	46.88		-0.01%	0.00%	8.8
8 13		0.00168705	1.99%	105.88 114.28	36.00 44.40		0.01%	0.00%	
13 23	6014.730 0 10643.367	0.000789411	0.93% 0.38%	114.28 124.16	36.00 44.40 54.28		0.01% -0.02% 0.00%	0.00% 0.00%	6. 4.
13	6014.730 0 10643.367 (751.631 (0.000789411 0.00032389 0.00031047	0.93%	114.28	44.40	INHARMONIC	-0.02%	0.00%	9.9 6.3 4.2 6.3 8.8
13 23 2	6014.730 0 10643.367 (751.631 (0.000789411 0.00032389 0.00031047	0.93% 0.38% 0.37%	114.28 124.16 78.27	44.40 54.28 8.40	INHARMONIC	-0.02% 0.00% -18.79%	0.00% 0.00% -4.40%	6.3 4.2 6.3
13 23 2 30 and 49	6014.730 0 10643.367 (751.631 (13878.933 (Altissimo – Lega Frequency	0.000789411 0.00032389 0.00031047 0.00030485 ato – C Amplitude	0.93% 0.38% 0.37% 0.36%	114.28 124.16 78.27 128.75	44.40 54.28 8.40 58.88	INHARMONIC	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver	0.00% 0.00% -4.40% 0.00%	6.3 4.2 6.3 8.8 Pitch Class
13 23 2 30 md 49	6014.730 0 10643.367 (751.631 (13878.933 (Altissimo – Lega Frequency 519.474	0.000789411 0.00032389 0.00031047 0.00030485 ato – C Amplitude 0.0813661	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00%	114.28 124.16 78.27 128.75 Pitch (MIDI#) 71.87	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver	0.00% 0.00% -4.40% 0.00%	6 4 6 8 Vitch Class
13 23 2 30 nd 49 HN 1 2	6014.730 0 10643.367 (751.631 (13878.933 (Altissimo – Lega Frequency 519.474 1044.347	0.000789411 0.00032389 0.00031047 0.00030485 ato - C Amplitude 0.0813661 0.0568367	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52%	0.00% 0.00% -4.40% 0.00% ssion (Pitch) PI 0.00% 0.11%	6. 4. 6. 8. Pitch Class 11. 12.
13 23 2 30 nd 49 iHN 1 2 3 4	6014.730 0 10643.367 1 751.631 1 13878.933 1 Altissimo – Legi Frequency 519.474 1044.347 1567.417 1 2088.667 1	0.000789411 0.00032389 0.00031047 0.00030485 ato - C Amplitude 0.0813661 0.0568367 0.04774177 0.04744277	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.68% 58.31%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09%	6. 4. 6. 8. 9itch Class 11. 12. 7.
13 23 2 30 nd 49 1HN 1 2 3 4 5	6014,730 0 10643,367 751,631 13878,933 1 Altissimo – Lege Frequency 519,474 1044,347 1567,417 2088,667 2609,917	ato – C Amplitude 0.0568367 0.0568367 0.04744277 0.01053443	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.831% 12.95%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.58% 0.48%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.09%	6. 4. 6. 8. Vitch Class 11. 12. 7. 12. 3.
13 23 2 30 nd 49 1HN 1 2 3 4 5 6	6014.730 0 10643.367 1 751.631 1 13878.933 1 Altissimo – Lege Frequency 5 159.474 1044.347 1 2088.667 2 2609.917 1 3133.183	ato – C Amplitude 0.058361 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.047744277 0.01053443 0.00936752	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.68% 58.31% 12.95% 11.51%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98	44,40 54,28 8,40 58,88 Interval from Fundamental 0,00 12,09 19,12 24,09 27,95 31,11		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52%	0.00% 0.00% -4.40% 0.00% sion (Pitch) P 0.00% 0.11% 0.01% 0.01% 0.08%	6. 4. 6. 8. Vitch Class 11. 12. 7. 12. 3.
13 23 2 30 2 30 1HN 1 2 3 4	6014.730 0 10643.367 1 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1 1044.347 1 1567.417 2 2088.667 2 2609.917 3 133.183 1 5221.780	ato – C Amplitude 0.0813661 0.083661 0.083661 0.0813661 0.0868367 0.04774177 0.04744277 0.01053443 0.00936752 0.0073318	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.831% 12.95%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.58% 0.48%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.09%	6. 4. 6. 8. 91tch Class 11. 12. 7. 12. 3. 7.
13 23 2 30 md 49 1 1 2 3 3 4 4 5 6 6 10 9 8	6014.730 0 10643.367 1 751.631 1 13878.933 1 Altissimo – Lega Frequency 5 519.474 1044.347 1 2088.667 2 2609.917 1 3133.183 1 5221.780 470.643 470.643 4707.470 1	ato – C Amplitude 0.0813661 0.05437417 0.0030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701	0.93% 0.38% 0.37% 0.36% 0.36% 400.00% 69.85% 58.83% 58.31% 11.51% 9.01% 6.41% 5.21%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96	44,40 54,28 8,40 58,88 Interval from Fundamental 0,00 12,09 19,12 24,09 27,95 31,11 39,95 38,13 36,09		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.52%	0.00% 0.00% -4.40% 0.00% sion (Pitch) P 0.00% 0.11% 0.09% 0.08% 0.08% 0.08% 0.09% 0.08%	6. 4. 6. 8. 11. 12. 7. 12. 3. 7. 3. 2. 12.
13 23 2 30 30 4 11 1 2 3 4 5 6 6 10 9 8 11	6014.730 0 10643.367 751.631 i 13878.933 i Altissimo – Lege Frequency 519.474 1044.347 1567.417 (2088.667 2009.917 i 3133.183 i 5221.780 4700.643 4177.470 i 5743.030 i	ato – C Amplitude 0.0583661 0.058367 0.0031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.89% 58.31% 12.95% 11.51% 6.41% 5.21% 4.55%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.48% 0.52% 0.52% 0.52% 0.52% 0.54%	0.00% 0.00% -4.40% 0.00% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.09% 0.08% 0.08%	6. 4. 6. 8. Vitch Class 11. 12. 7. 7. 12. 3. 7. 3. 2. 12.
13 23 2 30 md 49 4 1 1 2 3 4 4 5 6 6 10 9 8 11 1 2 7	6014.730 0 10643.367 751.631 i 13878.933 i Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 i 5221.780 4700.643 i 4177.470 5743.030 i 6265.927 i 3653.940 i	ato – C Amplitude 0.083676 0.0836867 0.0930485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00251677 0.00256035	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.81% 12.95% 61.51% 9.01% 6.41% 5.21% 4.55% 3.09%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77	Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.54% 0.52% 0.54% 0.52% 0.48%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.09% 0.08% 0.08% 0.08% 0.08%	6, 4. 6. 8. 8. 11. 12. 7. 12. 3. 7. 3. 2. 12. 5. 7. 9. 9.
13 23 2 30 md 49 ml 1 1 2 3 4 4 5 6 6 10 9 9 8 11 12 7 3	6014.730 0 10643.367 1 751.631 1 13878.933 1 13878.933 1 13878.933 1 1587.933 1 1044.347 1 1587.417 2 2609.917 3 1313.183 5 5221.780 4 170.643 4 177.470 1 177.470 1 177.470 1 177.2467 1	ato – C Amplitude 0.0836367 0.0031367 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00236035 0.00072875	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 58.31% 9.01% 6.41% 5.21% 3.09% 2.90% 0.90%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25		-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.48% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 1.52	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6. 4. 6. 8. 8. 9. 11. 12. 7. 7. 12. 3. 7. 3. 2. 12. 5. 7. 9. 9. 9. 9. 9.
13 23 2 30 and 49 4HN 1 2 3 4 4 5 6 6 10 9 8 8 11 12 7 7 3 17	6014.730 0 10643.367 1 751.631 1 13878.933 1 13878.933 1 13878.933 1 13878.933 1 14978.933 1 1597.474 1 1044.347 1 1567.417 1 2088.667 1 2609.917 3133.183 1 5221.780 1 4700.643 1 4177.470 1 5743.030 1 67265.927 3653.940 1 1772.467 1 8875.997 1	ato – C Amplitude 0.0836367 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.0073443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00251677 0.00251677 0.00251677 0.0025035	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.81% 9.01% 6.41% 5.21% 4.55% 3.09% 2.90% 0.75%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01	44,40 54,28 8,40 58,88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14	Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.54% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51%	0.00% 0.00% -4.40% 0.00% sion (Pitch) P 0.00% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6 4 4 4 6 8 8 8 8 9 11 12 12 12 12 12 12 12 12 12 12 12 12
13 23 2 30 NHN 1 2 3 3 4 5 6 6 10 9 8 8 11 12 7 3	6014.730 0 10643.367 751.631 1 13878.933 1 13878.933 1 13878.933 1 1418.578.933 1 1044.347 1567.417 2088.667 2609.917 3133.183 5221.780 4700.643 4177.470 1 5743.030 6265.927 1 3653.940 1772.467 8875.997 10443.400 1	ato – C Amplitude 0.0836367 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.0073443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00251677 0.00251677 0.00251677 0.0025035	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 58.31% 9.01% 6.41% 5.21% 3.09% 2.90% 0.90%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25	Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.48% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 1.52	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6. 4. 6. 8. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.
13 23 2 30 mnd 49 HHN	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 12088.667 172.2609.917 3133.183 5221.780 4700.643 4177.470 0643 1772.467 8875.997 10443.400 6787.113	ato – C Amplitude 0.0813661 0.058367 0.04774177 0.047744277 0.0153443 0.00521796 0.00521796 0.00423701 0.00370479 0.00251677 0.00251677 0.0025849 0.00072875 0.00049549	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 11.51% 6.41% 5.21% 6.41% 5.21% 4.55% 3.09% 0.90% 0.90%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95	Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.52% 0.54% 0.52% 0.52% 0.52% 0.52% 0.52%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6. 4. 6. 8. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.
13 23 2 30 Ind 49 IHN 1 2 3 4 4 5 6 10 9 8 8 11 12 7 7 3 17 20 13	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 5221.780 4700.643 4177.470 15743.030 6265.927 3653.940 1772.467 8875.997 10443.400 6787.113	ato – C Amplitude 0.083636 0.0031369 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00236035 0.0072875 0.00061041 0.00058491 0.00049549	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.31% 6.41% 5.21% 6.41% 5.21% 2.90% 0.75% 0.90% 0.75% 0.75% 0.72% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.52% 0.54% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.50%	0.00% 0.00% -4.40% 0.00% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6. 4. 6. 8. 11. 12. 7. 7. 12. 3. 2. 12. 5. 7. 9. 9. 1. 3. 8.
13 23 2 30 md 49 4 5 6 6 10 9 8 8 11 12 7 3 17 20 13 md 50 4 1HN 3	6014.7300 10643.367 751.631 i 13878.933 i Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 5221.780 4700.643 4177.470 5743.030 6265.927 3653.940 1772.467 8875.997 10443.400 6787.113	ato – C Amplitude 0.004374 0.0030485 ato – C Amplitude 0.0813661 0.0568367 0.04774477 0.01053443 0.00521796 0.00473701 0.00370479 0.00236035 0.00072875 0.00058491 0.00058491 0.00058491 0.00049549	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.68% 58.68% 51.51% 9.01% 6.41% 5.21% 4.55% 3.09% 2.90% 0.75% 0.72% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98	Notes INHARMONIC	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.55% 0.52% 0.50% 0.52% 0.50% 0.52% 0.50% 0.50% 0.50%	0.00% 0.00% -4.40% 0.00% 0.00% 0.11% 0.01% 0.09% 0.11% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6. 4. 6. 8. 11. 12. 7. 12. 3. 3. 7. 3. 2. 12. 5. 7. 9. 9. 1. 3. 8. 11. 3. 8. 11. 12. 12. 12. 13. 14. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15
13 23 23 30 IHN 1 1 2 3 4 4 5 6 6 10 9 8 8 11 12 7 7 7 3 17 20 13	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 1208.667 2609.917 3133.183 4707.643 4177.470 5743.030 6265.927 1769.750 10443.400 6787.113	ato – C Amplitude 0.083636 0.0031369 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00236035 0.0072875 0.00061041 0.00058491 0.00049549	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.31% 6.41% 5.21% 6.41% 5.21% 2.90% 0.75% 0.90% 0.75% 0.75% 0.72% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.52% 0.54% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.50%	0.00% 0.00% -4.40% 0.00% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08%	6 4 4 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
13 23 30 IHN 1 1 1 2 3 3 4 4 5 6 6 6 10 9 9 8 8 11 1 12 7 20 13 13 14 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	6014.7300 10643.367 751.631 i 13878.933 i Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 4707.643 4707.70 5743.030 6265.927 4705.740 6787.113 Altissimo – Lege Frequency 1799.750 591.129 1180.283 2950.117	ato – C Amplitude 0.004374 0.003348 0.0031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.047744177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00236035 0.00072875 0.00061041 0.00058491 0.00049549 ato – D Amplitude 0.09949797 0.0933116 0.09848777 0.0933116 0.09848777	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.85% 58.81% 12.95% 6.41% 6.41% 6.21% 4.55% 0.90% 0.75% 0.72% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.52% 0.50% 0.52% 0.50% 0.52% 0.00% -0.17% -0.19%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% -4.40% 0.00% 0.11% 0.11% 0.11% 0.09% 0.08%	6.4.6.8.8.11.12.12.7.7.12.12.3.3.7.3.2.12.5.7.9.9.9.9.9.9.9.9.13.8.8.11.12.12.12.12.12.12.12.12.12.12.12.12.
13 23 2 30 Ind 49 IHN 1 2 3 4 4 5 6 6 100 9 8 8 111 12 17 7 3 17 200 13 13 Ind 50 IHN 3 1 1 2 5 5 4	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 4177.470 4700.643 4177.470 5743.030 6265.927 1769.750 10443.400 6787.113	ato – C Amplitude 0.003438 ato – C Amplitude 0.0813661 0.0568367 0.04744277 0.01053443 0.00936752 0.0073318 0.00521796 0.00476497 0.00236035 0.0072875 0.00061041 0.00058491 0.00049549 ato – D Amplitude 0.09849797 0.0933116 0.09849797 0.0033116 0.0033116 0.03818717 0.001489267	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 58.31% 12.95% 11.51% 6.41% 5.21% 6.41% 5.21% 0.90% 0.75% 0.90% 0.75% 0.90% 0.75% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.48% 0.52% 0.52% 0.54% 0.52% 0.52% 0.55% 0.52% 0.50% 0.52% 0.50% 0.50% 0.51% 0.51% 0.52% 0.50% 0.50% Diversion (Hz) Diver -0.21% -0.00% -0.17% -0.19% -0.24%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.09%	Fitch Class 11. 12. 7. 12. 3. 2. 12. 5. 7. 9. 9. 1. 3. 8.
13 23 2 30 IHN	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 2089.917 3133.183 5221.780 6265.927 3653.940 1 1772.467 8875.997 10443.400 6787.113 1	ato – C Amplitude 0.0813661 0.058367 0.00739485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00251677 0.00251677 0.0025035 0.00049549 ato – D Amplitude 0.09949797 0.0933116 0.09849797 0.0933116 0.003818717 0.01889267 0.003818717 0.01489267 0.0112896 0.00743866	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.85% 58.81% 12.95% 6.41% 6.41% 6.21% 4.55% 0.90% 0.75% 0.72% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.55% 0.52% 0.50% 0.52% 0.50% 0.52% 0.00% -0.17% -0.19%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% -4.40% 0.00% 0.11% 0.11% 0.11% 0.09% 0.08%	itch Class 11 12 7 12 3 3 7 3 12 5 7 9 9 1 3 8 8 6 6 6 8 8 6 6 7 9 9 1 1 2 4 6 6 8 8 6 6 8 8 8 6 6 6 8 8 8 6 6 6 8 8 8 6 6 6 8 8 8 6 6 6 8 8 8 8 6 6 6 8
13 23 23 30 Ind 49 IHN	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 4700.643 4177.470 15743.030 6265.927 3653.940 1772.467 8875.997 10443.400 6787.113 Altissimo – Lege Frequency 1769.750 591.129 1769.750 591.129 1769.750 591.129 1780.283 2950.117 2358.790 5310.953 3539.453 4130.460	ato – C Amplitude 0.081361 0.058367 0.0031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00423701 0.00370479 0.00236035 0.00072875 0.00061041 0.00058491	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.88% 58.31% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 6.	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96 38.01 30.98 33.66	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.50% Diversion (Hz) Diver -0.21% -0.19% -0.17% -0.19% -0.24% -0.17% -0.21% -0.18%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% Sion (Pitch) P 0.00% 0.11% 0.11% 0.09% 0.08% 0.00%	6 4 4 6 8 8 8 8 8 9 1 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
13 23 23 30 IHN 1 2 3 3 4 4 5 6 6 10 13 13 17 20 13 17 20 13 17 20 13 17 27 20 13 17 27 20 13 17 27 20 13 17 27 20 13 17 27 20 13 17 27 20 13 17 27 20 13 17 20 17 20 17 20 17 20 17 20	6014.7300 10643.367 751.631 13878.933 183878.933 183878.933 183878.933 183878.933 183878.933 1838 1838 1838 1838 1838 1838 1838 1	ato – C Amplitude 0.003389 0.0031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.047744177 0.01053443 0.00936752 0.0073318 0.00521796 0.00236035 0.00072875 0.00061041 0.0038491 0.00049489 ato – D Amplitude 0.0949797 0.0933116 0.03818717 0.01189267 0.01189266 0.00743866 0.00743866 0.00743866 0.00743866 0.00743866 0.00743866 0.00743866	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.85% 58.81% 12.95% 6.41% 6.41% 6.29% 0.01% 6.45% 0.00% 4.55% 0.72% 0.61% Amp Ratio 106.63% 100.00% 40.92% 4.95% 15.96% 12.10% 7.97% 5.83% 4.39% 4.09%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77 115.59	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.17 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96 38.01 30.98 33.66 41.48	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.00% -0.17% -0.19% -0.24% -0.17% -0.19% -0.21% -0.18% -0.20%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% 0.11% 0.11% 0.11% 0.09% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.08% 0.07% 0.07% 0.07% 0.07% 0.07% 0.07% 0.07% 0.07% 0.03% -0.03% -0.03% -0.03% -0.03% -0.03%	6. 4. 6. 8. 9. 11. 12. 12. 12. 12. 12. 12. 12. 12. 12
13 23 23 30 Ind 49 IHN	6014.730 0 10643.367 751.631 1 13878.933 1 Altissimo – Lege Frequency 519.474 1044.347 1567.417 2088.667 2609.917 3133.183 4177.470 470.643 4177.470 5743.030 6265.927 179.47 10443.400 6787.113 Altissimo – Lege Frequency 1769.750 10443.400 6787.113 Altissimo – Lege Frequency 1769.750 591.129 1180.283 2950.117 2358.790 5310.953 4130.460 6489.387 4130.460 6489.387 5900.103	ato – C Amplitude 0.093439 0.00031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04744277 0.01053443 0.00936752 0.00737479 0.00251677 0.00236035 0.0072875 0.00054410 0.0049449 0.0049448 0.00581736	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 12.95% 11.51% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 5.21% 6.41% 6	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77 115.59 113.94	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96 38.01 30.98 33.66	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.50% Diversion (Hz) Diver -0.21% -0.19% -0.17% -0.19% -0.24% -0.17% -0.21% -0.18%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.09% 0.03% 0.03% -0.03% -0.03% -0.03% -0.03% -0.03%	6. 4. 6. 8. 8. 9. 11. 7. 7. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12
13 23 2 30 30 31 11 12 3 3 4 4 5 6 6 10 9 9 8 8 11 12 20 13 13 14 12 12 13 13 14 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	6014.7300 10643.367 751.631 13878.933 18365.014.730 6269.917 3133.183 5221.780 4700.643 4177.470 5743.030 6265.927 179.7363.940 1772.467 8875.997 10443.400 6787.113 1836.940 1772.467 3653.940	ato – C Amplitude 0.003389 0.0031047 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774177 0.01053443 0.00936752 0.0073318 0.00521796 0.00236035 0.0072875 0.00061041 0.0036035 0.00072875 0.0005104 0.003818717 0.014896 0.004486 0.00443413 0.0049448 0.00381731 0.0049448 0.00381705 0.00116829 0.00116629 0.00116629 0.00116629 0.00175843	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 58.31% 12.95% 6.41% 5.21% 4.55% 3.09% 0.75% 0.75% 0.75% 0.12% 0.61% Amp Ratio 106.63% 100.00% 40.92% 6.12.10% 7.97% 5.83% 4.09% 4.99% 4.09% 4.09% 4.09% 4.09% 4.09%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77 115.59 113.94 110.08 120.96	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96 38.01 30.98 33.66 41.48 39.83 35.97 46.85	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.50% 0.52% 0.48% 13.73% 0.51% 0.52% 0.48% 13.73% 0.51% 0.52% 0.48% 13.73% 0.51% 0.52% 0.48% 13.73% 0.51% 0.52% 0.48% 13.73% 0.51% 0.52% 0.19% 0.00% -0.17% -0.19% -0.21% -0.18% -0.20% -0.19%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% -4.40% 0.00% 0.11% 0.11% 0.09% 0.08% 0.00% 0.0	6. 4. 6. 8. 11. 12. 7. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12
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13 23 2 30 2 30 2 30 2 30 30 30 30 30 30 30 30 30 30 30 30 30	6014.7300 10643.367 751.631 i 13878.933 i Altissimo – Lega Frequency 519.474 1044.347 1567.417 12088.667 2609.917 3133.183 5221.780 4700.643 4177.470 5743.030 6265.927 3653.940 1772.467 18875.997 10443.400 6787.113 Altissimo – Lega Frequency 1769.750 591.129 1180.283 2950.117 2388.790 5310.953 3539.453 4130.460 6489.387 5900.103 4719.633 8850.100 7080.237 10032.367	ato – C Amplitude 0.0043701 0.00030485 ato – C Amplitude 0.0813661 0.0568367 0.04774477 0.01053443 0.00521796 0.0033045 0.00474277 0.01053443 0.00521796 0.00473701 0.00370479 0.00236035 0.00072875 0.00061041 0.00049549 ato – D Amplitude 0.09849797 0.0933116 0.09949797 0.0933116 0.00949797 0.0112896 0.00544113 0.0049484 0.00381734 0.00237105 0.00116629 0.0075843 0.0001665722 0.00056853	0.93% 0.38% 0.37% 0.36% Amp Ratio 100.00% 69.95% 58.88% 58.31% 6.41% 5.21% 9.01% 6.41% 5.21% 0.05% 0.75% 0.90% 0.75% 0.61% Amp Ratio 106.63% 10.00% 40.92% 15.96% 12.10% 7.97% 5.83% 4.39% 4.39% 4.39% 4.39% 4.39% 4.09% 0.54% 6.81% 0.70% 0.61%	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77 115.59 113.94 110.08 120.96 120.96 120.96 121.33	144,40 54,28 8,40 58,88 8,40 58,88 8,40 58,88 8,40 6,50 6	Notes INHARMONIC Notes	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.52% 0.48% 13.73% 0.51% 0.52% 0.50% Diversion (Hz) Diver -0.21% -0.00% -0.17% -0.19% -0.24% -0.17% -0.21% -0.19% -0.20% -0.19% -0.20% -0.19% -0.19% -0.19% -0.19% -0.19% -0.19% -0.17% -0.19% -0.19% -0.19% -0.17% -0.19% -0.19% -0.17% -0.19% -0.17% -0.19% -0.17% -0.19% -0.19% -0.17% -0.19% -0.17% -0.19% -0.17% -0.19% -0.17% -0.19% -0.17%	0.00% 0.00% -4.40% 0.00% -4.40% 0.00% 0.00% 0.11% 0.11% 0.09% 0.08% 0.03% 0.03% -0.05% -0.0	6. 4. 6. 8. 11. 12. 7. 12. 3. 2. 12. 12. 12. 12. 12. 12. 12. 12. 12.
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13 23 2 30 2 30 2 30 2 30 30 30 30 30 30 30 30 30 30 30 30 30	6014.7300 10643.367 751.631 i 13878.933 i Altissimo – Lege Frequency 519.474 1044.347 1567.417 1208.667 2609.917 3133.183 5221.780 4700.643 4177.470 5743.030 6265.927 179.7543.030 6787.113 i Altissimo – Lege Frequency 1769.750 1875.97 1043.400 6787.113 Altissimo – Lege Frequency 1769.750 1769.750 1799.750 1799.750 1875.97	ato – C Amplitude 0.003485 ato – C Amplitude 0.0813661 0.0568367 0.04744277 0.01053443 0.00936752 0.0073318 0.00521796 0.00236035 0.0072875 0.00056036 0.004301 0.00370479 0.00236035 0.00072875 0.0005104 0.003818717 0.014896 0.0048481 0.0049484 0.003818717 0.01489267 0.0112896 0.00743865 0.0075843 0.00057843 0.00057843 0.00057843 0.00057843 0.00057843 0.00057843 0.00057843 0.00057843 0.00057843 0.00056722 0.00075843 0.00056853	0.93% 0.38% 0.37% 0.36% 0.37% 0.36% Amp Ratio 100.00% 69.85% 58.83% 58.31% 12.95% 6.41% 5.21% 4.55% 3.09% 0.75% 0.90% 0.75% 0.10% 4.55% 3.09% 0.75% 0.10% 4.55% 3.09% 0.75% 0.10% 0.10% 4.55% 3.09% 0.10% 0	114.28 124.16 78.27 128.75 Pitch (MIDI #) 71.87 83.96 90.99 95.96 99.82 102.98 111.83 110.01 107.96 113.47 114.98 105.65 93.12 121.01 123.83 116.37 Pitch (MIDI #) 93.10 74.11 86.08 101.94 98.07 112.12 105.10 107.77 115.59 113.94 110.08 120.96 117.10 123.13	44.40 54.28 8.40 58.88 Interval from Fundamental 0.00 12.09 19.12 24.09 27.95 31.11 39.95 38.13 36.09 41.60 43.11 33.77 21.25 49.14 51.95 44.49 Interval from Fundamental 18.98 0.00 11.97 27.83 23.96 38.01 30.98 33.66 41.48 39.83 35.97 46.85 42.99 49.02 Interval from Fundamental 0.00	Notes INHARMONIC Notes LOUDER THAN FUNDAMENTAL	-0.02% 0.00% -18.79% -0.03% Diversion (Hz) Diver 0.00% 0.52% 0.58% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.52% 0.50% 0.52% 0.50% 0.52% 0.14% 0.52% 0.48% 13.73% 0.51% 0.52% 0.48% 13.73% 0.51% 0.24% -0.17% -0.19% -0.24% -0.17% -0.21% -0.18% -0.20% -0.19% -0.20% -0.19% -0.19% -0.19% -0.19% -0.17%	0.00% 0.00% 0.00% 4.40% 0.00% 0.00% 0.11% 0.11% 0.11% 0.09% 0.08% 0.03%	6.3 4.2 6.3 8.8 11.8 12.0 7.0 12.0 3.8 2.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0

			Appendix 3				
6 111 7 9 8 10 18 15 14 16 17	3752.637 0.00466141 6876.340 0.00432827 4377.273 0.00356757 5626.517 0.00287231 5002.173 0.00126655 6254.367 0.00102163 11253.600 0.00081099 3377.477 0.00079766 8752.543 0.0006691 10002.327 0.00049341 10028.867 0.00056988 8128.070 0.00053384	4.64% 106.11 4.31% 116.59 3.55% 108.77 2.86% 113.12 1.26% 111.08 1.02% 114.95 0.81% 125.12 0.79% 121.96 0.67% 120.77 0.49% 123.08 0.57% 124.13 0.53% 119.49	31.04 41.52 33.70 38.05 36.01 39.88 50.05 46.89 45.70 48.01 49.06 44.42		0.11% 0.06% 0.09% 0.07% 0.08% 0.11% 0.07% 0.07% 0.07% 0.07% 0.06% 0.08%	0.02% 0.01% 0.01% 0.01% 0.01% 0.02% 0.01% 0.01% 0.01% 0.01%	10.1 8.6 0.8 5.1 3.1 7.0 5.1 2.0 0.8 3.1 4.1
Sound 52	Altissimo – Legato – F	Amp Ratio Pitch (MIDI#	Interval from Fundamental	Notes	Diversion (Hz) Divers	sion (Pitch) Pi	itch Class
1 3 2 6 5 7 4 9 10 8 8 15 16 17 12 14	\$68.916 0.119594 2071.370 0.0875149 1381.883 0.05676673 4145.190 0.00896692 3453.093 0.00485599 4834.620 0.00447338 2763.583 0.00242318 6218.350 0.00254272 6910.313 0.00214838 5524.057 0.00155041 10361.600 0.00092675 11051.433 0.00082462 11745.400 0.00062361 8290.200 0.00058555 9671.607 0.00056055 7600.097 0.00049594	70.00% 76.79 73.18% 95.82 47.47% 88.81 7.52% 107.83 4.06% 104.67 3.74% 110.49 3.53% 100.81 2.13% 114.85 1.80% 116.68 1.30% 112.80 0.77% 123.69 0.69% 124.81 0.52% 125.86 0.49% 119.83 0.47% 122.50 0.41% 118.33	0.00 19.03 12.03 31.04 27.88 33.71 24.02 38.06 39.89 36.01 46.90 48.02 49.07 43.04 45.71 41.54	very little diversion across harmonic partials	0.00% 0.08% 0.15% 0.15% 0.14% 0.10% 0.11% 0.15% 0.16% 0.09% 0.12% 0.12% 0.14% 0.14%	0.00% 0.01% 0.03% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02% 0.02%	4.8 11.8 4.8 11.8 8.7 2.5 4.8 6.9 8.7 4.8 3.7 4.8 5.9 11.8 2.5
NHN	Altissimo – Legato – G Frequency Amplitude			Notes	Diversion (Hz) Divers		
2 1 3 4 5 6 8 10 7 7 11 12 13 15	1608.673 0.250266 806.142 0.09679443 2413.060 0.03699193 3219.227 0.03331483 4025.303 0.0155983 4827.940 0.01127807 6438.337 0.00421386 8047.020 0.00220314 5632.090 0.00220314 5657.727 0.00092863 10463.833 0.00013648 9657.727 0.0092863 12072.667 0.00092854	258.55% 91.44 100.00% 79.48 38.22% 98.46 24.09% 103.45 16.11% 107.32 11.65% 110.47 4.35% 115.45 2.28% 119.31 2.27% 113.14 1.07% 120.97 0.96% 122.47 0.94% 123.86 0.85% 126.34	11,96 0.00 18,98 23,97 27,84 30,99 35,97 39,83 33,65 41,49 42,99 44,38 46,85	LOUDER THAN FUNDAMENTAL <u>very little diversion across</u> <u>harmonic partials</u>	-0.22% 0.00% -0.22% -0.17% -0.13% -0.18% -0.18% -0.19% -0.16% -0.15% -0.16%	-0.04% 0.00% -0.04% -0.03% -0.02% -0.03% -0.03% -0.03% -0.03% -0.02% -0.02% -0.02%	7.4 7.5 2.5 7.5 11.3 2.5 7.5 11.3 5.1 1.0 2.5 3.9 6.3
Sound 54 NHN 1 4 2 5 6 3 7 8 11 12	Altissimo – Legato – A Frequency 913,741 3649.707 1823.897 0.03683003 1823.897 0.02789353 5473.487 0.01056203 2735.773 0.0097136 6385.197 0.00435571 7299.147 0.00298325 10036.967 0.00214064 10947.000 0.00136233	Amp Ratio 100.00% 81.65 105.63 19.12% 93.62 16.41% 109.49 6.21% 112.64 5.71% 100.64 17.63 1.26% 117.63 1.26% 123.14 0.88% 124.64	0.00 23.98 11.97 27.84 30.99 18.99 33.66 35.97 41.49 42.99	Notes <u>very little diversion across</u> <u>harmonic partials</u>	Diversion (Hz) Divers 0.00% -0.14% -0.20% -0.16% -0.16% -0.20% -0.17% -0.15% -0.16%	0.00% -0.02% -0.02% -0.04% -0.02% -0.03% -0.03% -0.03% -0.02% -0.02%	9.7 9.6 9.6 1.5 4.6 4.6 7.3 9.6 3.1
13 16	11861.000 0.00091204 14596.667 0.00058882	0.54% 126.03 0.35% 129.62	44.38 47.97		-0.15% -0.16%	-0.02% -0.02%	6.0 9.6
Sound 55 NHN	Altissimo – Legato – high Bb Frequency Amplitude			Notes	Diversion (Hz) Divers		itch Class
1 2 3 4 5 6 7 9 8 10 14 11 15	954.060 0.15480433 1906.357 0.12052233 2860.520 0.05771257 3814.663 0.05212987 4766.803 0.02246207 5720.747 0.01047843 6669.557 0.00303946 8580.623 0.00173071 7628.817 0.0017138 9534.933 0.00169511 13350.233 0.0010358 10489.900 0.00094806 14297.833 0.00094038 11440.767 0.00079412	100.00% 82.40 77.85% 94.38 37.28% 101.41 33.67% 106.39 15.90% 110.25 6.77% 113.41 1.95% 116.06 1.12% 120.43 1.11% 118.39 1.09% 122.25 0.67% 128.08 0.61% 123.90 0.61% 129.27 0.51% 125.41	0.00 11.98 19.01 23.99 27.85 31.01 33.67 38.03 35.99 39.85 45.68 41.51 46.87 43.01	<u>very little diversion across</u> <u>harmonic partials</u>	0.00% -0.09% -0.06% -0.04% -0.07% -0.06% -0.13% -0.07% -0.05% -0.05% -0.05% -0.05% -0.05% -0.07%	0.00% -0.02% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01% -0.01%	10.4 10.4 5.4 10.4 2.2 5.4 8.1 0.4 10.4 2.3 8.1 3.9 9.3 5.4

				A	opendix 4			
Sound 1 B	ottom – mf							
NHN 4	Frequency Amplitude / 1183.327 0.0234618333	Amp Ratio 244.72%	86.13	Interval from Fundamental 24.05	Notes louder than fundamental	Diversion (Hz) Divers 0.31%	ion (Pitch) Pitch 0.06%	Class 2.1
3	886.594 0.0190299333	198.49%	81.13	19.06	louder than fundamental	0.21%	0.04%	9.1
5	1478.260 0.0174087667	181.58%	89.98	27.91	louder than fundamental	0.25%	0.05%	6.0
6 7	1773.177 0.0161810667 2069.940 0.0156810667	168.78% 163.56%	93.13 95.81	31.06 33.73	louder than fundamental louder than fundamental	0.21% 0.27%	0.04% 0.05%	9.1 11.8
2	591.625 0.0125273667	130.67%	74.13	12.05	louder than fundamental	0.30%	0.07%	2.1
1	294.924 0.0095871567	100.00%	62.07	0.00	Part Provide	0.00%	0.00%	2.1
8 9	2364.807 0.00925257 2659.583 0.00539675	96.51% 56.29%	98.11 100.15	36.04 38.07	very little diversion across harmonic partials,	0.23% 0.20%	0.04% 0.03%	2.1 4.1
10	2956.480 0.0049581933	51.72%	101.98	39.91	all are slightly sharp	0.25%	0.04%	6.0
11	3251.333 0.0030301467	31.61%	103.63	41.55		0.22%	0.04%	7.6
12 13	3546.383 0.00256442 3843.190 0.0020251	26.75% 21.12%	105.13 106.52	43.06 44.45		0.21% 0.24%	0.03% 0.04%	9.1 10.5
14	4136.077 0.0014497967	15.12%	107.79	45.72		0.17%	0.03%	11.8
15	4434.747 0.0008379377	8.74%	109.00	46.93		0.25%	0.04%	1.0
16 5	4727.833 0.0007017477 1544.050 0.0003016827	7.32% 3.15%	110.11 90.73	48.03 28.66	INHARMONIC	0.19% 4.71%	0.03% 0.89%	2.1 6.7
6	1843.253 0.0002341313	2.44%	93.80	31.73	INHARMONIC	4.17%	0.76%	9.8
7	2134.477 0.0002588283	2.70%	96.34	34.27	INHARMONIC	3.39%	0.60%	0.3
	liddle – mf – low	Amer Detic	Ditab (MIDL4)	Interval from Frankonsontal	Nata	Diversion (Un) Divers	ion (Ditah) Ditah	Class
NHN 4	Frequency Amplitude / 1401.753 0.0310065667	Amp Ratio 211.52%	Pitch (MIDI #) 89.06	Interval from Fundamental 23.87	Notes louder than fundamental	Diversion (Hz) Divers	ion (Pitch) Pitch -0.15%	5.1
5	1754.897 0.0236059	161.03%	92.95	27.76	louder than fundamental	-0.61%	-0.11%	8.9
3 2	1054.017 0.0225566667 700.878 0.0205779667	153.88% 140.38%	84.12 77.06	18.93 11.87	louder than fundamental	-0.51%	-0.10% -0.17%	0.1
6	700.878 0.0205779667 2106.247 0.0169563333	115.67%	96.11	30.92	louder than fundamental louder than fundamental	-0.76% -0.59%	-0.17%	5.1 0.1
1	353.129 0.0146590333	100.00%	65.19	0.00		0.00%	0.00%	5.2
8 7	2808.873	90.98% 71.04%	101.09 98.77	35.90 33.57	note that all harmonic partials are fairly flat	-0.57% -0.65%	-0.10% -0.11%	5.1 2.8
9	3158.360 0.0087672133	59.81%	103.12	37.93	partials are fairly flat	-0.62%	-0.10%	7.1
10	3509.687 0.00796222	54.32%	104.95	39.76		-0.61%	-0.10%	8.9
11 12	3860.913 0.0029188933 4210.553 0.0020447933	19.91% 13.95%	106.60 108.10	41.41 42.91		-0.61% -0.64%	-0.10% -0.10%	10.6 0.1
13	4561.830 0.000787077	5.37%	108.10	44.30		-0.64% -0.63%	-0.10%	1.5
14	4912.847 0.0006495153	4.43%	110.77	45.58		-0.63%	-0.10%	2.8
18 16	6316.547 0.000622053 5615.613 0.0005957113	4.24% 4.06%	115.12 113.09	49.93 47.89		-0.63% -0.61%	-0.09% -0.09%	7.1 5.1
17	5965.203 0.00057324	3.91%	114.13	48.94		-0.63%	-0.10%	6.1
15	5264.163 0.0005362283	3.66%	111.97	46.78		-0.62%	-0.10%	4.0
19 20	6667.713 0.0004494907 7017.247 0.0003176423	3.07% 2.17%	116.06 116.94	50.87 51.75		-0.62% -0.64%	-0.09% -0.10%	8.1 8.9
21	7370.420 0.000234222	1.60%	117.79	52.60		-0.61%	-0.09%	9.8
22	7720.153 0.000189738	1.29%	118.60	53.40		-0.63%	-0.09%	10.6
23 24	8071.573	1.17% 1.13%	119.37 120.11	54.17 54.92		-0.62% -0.59%	-0.09% -0.09%	11.4 0.1
				3.02		0.007		
Sound 3 B	ottom – p							
	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
4 3	1190.670 0.00488859 893.014 0.0042742067	140.43% 122.79%	86.23 81.25	23.90 18.92	louder than fundamental louder than fundamental	-0.60% -0.59%	-0.12% -0.13%	2.2 9.3
2	593.526 0.0037956533	109.04%	74.18	11.84	louder than fundamental	-0.90%	-0.21%	2.2
1	299.451 0.0034810467	100.00%	62.34	0.00		0.00%	0.00%	2.3
5 6	1486.507 0.0024739833 1784.167 0.0017252567	71.07% 49.56%	90.08 93.24	27.74 30.90	note that all harmonic partials are fairly flat	-0.72% -0.70%	-0.14% -0.13%	6.1 9.2
7	2083.723 0.0008342587	23.97%	95.92	33.59	paraus are rarry nac	-0.59%	-0.11%	11.9
8	2379.743 0.000410649	11.80%	98.22	35.88	small, negligible noise bands	-0.66%	-0.12%	2.2
9 10	2677.403 0.0003524193 2974.927 0.0002537473	10.12% 7.29%	100.26 102.09	37.93 39.75	occur at frequencies that are relatively focussed	-0.66% -0.65%	-0.11% -0.11%	4.3 6.1
11	3274.370 0.000104571	3.00%	103.75	41.41	(within ~30 Hz across readings)	-0.59%	-0.10%	7.7
12	3568.087 5.575787E-005	1.60%	105.23	42.90	perhaps suggesting a pattern	-0.70%	-0.12%	9.2
15 16	4459.150 4.53683E-005 4758.680 0.000029447	1.30% 0.85%	109.09 110.22	46.76 47.88		-0.73% -0.68%	-0.12% -0.11%	1.1 2.2
Sound 4 M	fiddle – pp – low							
NHN	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
3	1062.447 0.0063782067 354.708 0.0063689767	100.14% 100.00%	84.26 65.27	18.99 0.00	louder than fundamental	-0.16% 0.00%	-0.03% 0.00%	0.3 5.3
2	709.458 0.0062358067	97.91%	77.27	12.00	while most harmonic	0.01%	0.00%	5.3
4	1417.127 0.0058884933	92.46%	89.25	23.98	partials are slightly flat,	-0.12%	-0.02%	5.2
5 6	1770.080 0.0035962367 2124.807 0.0016178533	56.46% 25.40%	93.10 96.26	27.83 30.99	they are noticeably less flat than previous samples and 2 nd	-0.20% -0.16%	-0.04% -0.03%	9.1 0.3
8	2834.447 0.000402231	6.32%	101.25	35.98	partial is in fact slightly sharp.	-0.11%	-0.02%	5.2
9 7	3187.443 0.0002739727 2479.190 0.0002208637	4.30% 3.47%	103.28 98.93	38.01 33.66	very little diversion overall.	-0.15% -0.15%	-0.03% -0.03%	7.3 2.9
10	3542.367 0.000195028	3.47%	105.11	39.84	any focussed noisebands as	-0.15% -0.13%	-0.02%	9.1
11	3897.140 0.0001835573	2.88%	106.76	41.49	mentioned previously are	-0.12%	-0.02%	10.8
13 12	4606.583 0.000136047 4251.433 8.144507E-005	2.14% 1.28%	109.66 108.27	44.39 43.00	included in for this sample's data, note very low amplitude	-0.10% -0.12%	-0.02% -0.02%	1.7 0.3
3	1151.217 5.163207E-005	0.81%	85.65	20.38	INHARMONIC	8.18%	1.62%	1.7
4	1501.200 4.81604E-005	0.76%	90.25	24.98	INHARMONIC	5.81%	1.09%	6.2
Co								
Sound 5 B		Amn Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Ditch	Class
5	1465.180 0.0353460333	284.31%	89.83	27.93	ALL HARMONIC PARTIALS	0.37%	0.07%	5.8
6	1758.953 0.0324711333	261.19%	92.99	31.09	LOUDER THAN FUNDAMENTAL.	0.41%	0.08%	9.0
4 3	1173.210 0.0323179 881.296 0.0292182	259.95% 235.02%	85.98 81.03	24.08 19.13	note that all harmonic	0.46% 0.62%	0.09% 0.13%	2.0 9.0
7	2052.743 0.0275057333	221.25%	95.66	33.76	partials are quite sharp	0.44%	0.08%	11.7
8	2346.477 0.0257842	207.40%	97.98	36.08		0.46%	0.08%	2.0
9 10	2640.233 0.0196545 2932.193 0.0170143	158.09% 136.86%	100.02 101.84	38.12 39.94		0.48% 0.43%	0.08% 0.07%	4.0 5.8
2	585.754 0.0158097667	127.17%	73.95	12.05		0.31%	0.07%	2.0
1	291.958 0.0124321667	100.00%	61.90	0.00		0.00%	0.00%	1.9
10 6	3004.077 0.0003456143 1629.463 0.0002984987	2.78% 2.40%	102.26 91.67	40.36 29.77	INHARMONIC INHARMONIC	2.89% -6.98%	0.49% -1.35%	6.3 7.7
	.020.100 0.0002304301	2.7070	31.07	20.11		0.00/0		1.1
Sound 6 M	liddle – f – low							
	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Pitch	
4	1384.600 0.0473725333	261.21%	88.85	24.04	louder than fundamental	0.26%	0.05%	4.8
6 5	2076.910 0.0415042667 1731.697 0.0363974667	228.86% 200.70%	95.87 92.72	31.06 27.92	louder than fundamental louder than fundamental	0.26% 0.31%	0.05% 0.06%	11.9 8.7
3	1035.833 0.029837	164.52%	83.82	19.02	louder than fundamental	0.00%	0.00%	11.8
7	2422.163 0.0283677	156.42%	98.53	33.73	louder than fundamental	0.22%	0.04%	2.5
9 8	3112.613 0.0268894667 2767.400 0.0260681333	148.27% 143.74%	102.87 100.84	38.07 36.03	louder than fundamental louder than fundamental	0.17% 0.19%	0.03% 0.03%	6.9 4.8
11	3806.693 0.0250414333	138.08%	106.36	41.55	louder than fundamental	0.23%	0.04%	10.4
2	690.543 0.0249174333	137.40%	76.80	12.00	louder than fundamental	0.00%	0.00%	4.8

10	3459.697 0.0185932	102.52%	104.70	39.90	ppendix 4 louder than fundamental	0.20%	0.03%	8.7
1	345.265 0.0181355667	100.00%	64.80	0.00		0.00%	0.00%	4.8
12 13	4151.973 0.0134105667 4497.097 0.0101394133	73.95% 55.91%	107.86 109.24	43.06 44.44	very little diversion across harmonic partials.	0.21% 0.19%	0.03% 0.03%	11.9 1.2
15	5187.437 0.0066966633	36.93%	111.71	46.91	all are slightly sharp	0.16%	0.03%	3.7
14 16	4842.377 0.00650428 5534.550 0.0057480933	35.86% 31.70%	110.52 112.83	45.72 48.03		0.18% 0.19%	0.03% 0.03%	2.5 4.8
17 19	5881.800 0.0050958333 6574.037 0.0042639433	28.10% 23.51%	113.89 115.81	49.09 51.01		0.21% 0.21%	0.03% 0.03%	5.9 7.8
18	6228.897 0.0041329867	22.79%	114.88	50.08		0.23%	0.03%	6.9
20 5	6919.260 0.0034358 1836.960 0.0003497477	18.95% 1.93%	116.70 93.74	51.90 28.94	INHARMONIC	0.20% 6.41%	0.03% 1.16%	8.7 9.7
	0.0000101111	1.5570	00.7 1	20.01	iii ii uu uu otti o	0.1170	11.1070	0.1
Sound 7 B	Bottom – Staccato – E							
		Amp Ratio 490.32%	Pitch (MIDI #) 82.44	Interval from Fundamental 30.91	Notes louder than fundamental	Diversion (Hz) Divers	sion (Pitch) Pit	ch Class 10.4
8	1277.320 0.0097563833	471.47%	87.45	35.92 27.81	louder than fundamental	-0.47% -0.33%	-0.09% -0.07%	3.5
9	1433.407 0.0082731233	439.42% 399.79%	79.34 89.45	37.91	louder than fundamental louder than fundamental	-0.72%	-0.14%	7.3 5.4
10 11	1594.123 0.0075708067 1755.013 0.0073351233	365.85% 354.46%	91.29 92.95	39.75 41.42	louder than fundamental louder than fundamental	-0.63% -0.55%	-0.12% -0.10%	7.3 9.0
7	1116.437 0.0064481433	311.60%	85.12	33.59	louder than fundamental	-0.58%	-0.12%	1.1
4 12	638.423 0.00617776 1915.840 0.00611642	298.54% 295.57%	75.44 94.47	23.91 42.94	louder than fundamental louder than fundamental	-0.51% -0.48%	-0.12% -0.09%	3.4 10.5
3 13	477.915 0.0049287967 2071.473 0.00412281	238.18% 199.23%	70.43 95.82	18.90 44.29	louder than fundamental louder than fundamental	-0.70% -0.67%	-0.17% -0.12%	10.4 11.8
15	2393.337 0.0032240067	155.80%	98.32	46.79	louder than fundamental	-0.54%	-0.10%	2.3
2 14	319.350 0.0029957167 2232.233 0.0027745167	144.77% 134.08%	63.45 97.11	11.92 45.58	louder than fundamental louder than fundamental	-0.47% -0.61%	-0.13% -0.11%	3.5 1.1
17	2712.597 0.0022379733	108.15%	100.49	48.96	louder than fundamental	-0.54%	-0.09%	4.5
18 16	2874.033 0.0021672333 2551.560 0.00211906	104.73% 102.40%	101.49 99.43	49.96 47.90	louder than fundamental louder than fundamental	-0.47% -0.59%	-0.08% -0.10%	5.5 3.4
1 19	160.426 0.0020693533 3035.197 0.00144517	100.00% 69.84%	51.53 102.43	0.00 50.90	sample is almost a quartertone flat	0.00% -0.42%	0.00% -0.07%	3.5 6.4
20	3191.170 0.0013906967	67.20%	103.30	51.77	note that all harmonic	-0.54%	-0.09%	7.3
21 23	3352.557 0.0009626227 3669.020 0.0006999173	46.52% 33.82%	104.16 105.72	52.62 54.18	partials are quite flat	-0.49% -0.56%	-0.08% -0.09%	8.2 9.7
22 24	3513.973 0.0006695843 3830.417 0.0005823243	32.36% 28.14%	104.97 106.46	53.44 54.93		-0.44% -0.51%	-0.07% -0.08%	9.0 10.5
25	3988.047 0.0003684123	17.80%	107.16	55.63		-0.56%	-0.09%	11.2
4	711.171 0.0003531427	17.07%	77.31	25.78	INHARMONIC	10.83%	2.36%	5.3
Caund 0 0	N. W							
	Sottom - Staccato - F# Frequency Amplitude 702.985 0.0104278267	Amp Ratio 344,44%	Pitch (MIDI #) 77.11	Interval from Fundamental 24.18	Notes louder than fundamental	Diversion (Hz) Divers	sion (Pitch) Pit	ch Class 5.1
6	1052.653 0.00993402	328.13%	84.10	31.17	louder than fundamental	0.85%	0.17%	0.1
7 8	1233.410 0.0095215 1406.600 0.0089552733	314.51% 295.80%	86.84 89.12	33.91 36.18	louder than fundamental louder than fundamental	1.29% 1.07%	0.26% 0.21%	2.8 5.1
5 10	876.804 0.00850022	280.77%	80.94 92.95	28.00 40.02	louder than fundamental	0.80% 0.89%	0.17%	8.9 9.0
9	1755.130 0.00827155 1582.650 0.0080706833	273.22% 266.58%	91.16	38.23	louder than fundamental louder than fundamental	1.09%	0.17% 0.21%	7.2
11 12	1931.520 0.0065771867 2112.897 0.0048435367	217.25% 159.99%	94.61 96.16	41.67 43.23	louder than fundamental louder than fundamental	0.94% 1.22%	0.17% 0.22%	10.6 0.2
3	529.793 0.0043809967	144.71%	72.22	19.28	louder than fundamental	1.52%	0.36%	0.2
2 14	353.716 0.00433623 2458.313 0.0030904333	143.23% 102.08%	65.22 98.79	12.29 45.85	louder than fundamental louder than fundamental	1.67% 0.94%	0.44% 0.16%	5.2 2.8
1 13	173.961 0.0030274533 2286.203 0.0025487633	100.00% 84.19%	52.94 97.53	0.00 44.59	sample is almost a semitone flat note that all harmonic	0.00% 1.09%	0.00% 0.19%	4.9 1.5
15	2634.497 0.0023456467	77.48%	99.98	47.05	partials are very sharp	0.96%	0.17%	4.0
17 16	2982.530 0.00161318 2810.170 0.00151683	53.29% 50.10%	102.13 101.10	49.20 48.17		0.85% 0.96%	0.14% 0.16%	6.1 5.1
18 9	3157.800 0.0014595933 1489.347 0.000753172	48.21% 24.88%	103.12 90.11	50.19 37.17	INHARMONIC	0.85% -4.87%	0.14% -0.95%	7.1 6.1
21 19	3667.553 0.0007083727 3344.907 0.0006379607	23.40% 21.07%	105.71	52.78 51.18		0.39% 1.20%	0.06% 0.20%	9.7 8.1
6	962.605 0.000542039	17.90%	104.12 82.55	29.62	INHARMONIC	-7.78%	-1.67%	10.6
5 21	788.201 0.000491728 3730.293 0.000367872	16.24% 12.15%	79.09 106.00	26.16 53.07	INHARMONIC INHARMONIC	-9.38% 2.11%	-2.11% 0.34%	7.1 10.0
3	460.304 9.870543E-005	3.26%	69.78	16.85	INHARMONIC	-11.80%	-3.02%	9.8
Caund 0 0	24							
NHN	Sottom – Staccato – G# Frequency Amplitude Application A		Pitch (MIDI #)	Interval from Fundamental		Diversion (Hz) Divers		
6 5	1213.470 0.0171421 1008.470 0.0171373667	406.39% 406.28%	86.56 83.36	30.89 27.68	louder than fundamental louder than fundamental	-0.77% -1.04%	-0.15% -0.22%	2.6 11.4
7 8	1417.917 0.0132672 1622.340 0.0103464267	314.53% 245.28%	89.26 91.59	33.58 35.91	louder than fundamental louder than fundamental	-0.62% -0.50%	-0.12% -0.10%	5.3 7.6
4	804.256 0.00948255	224.80%	79.44	23.76	louder than fundamental	-1.35%	-0.30%	7.4
2 10	403.582 0.00782351 2031.303 0.0077093533	185.47% 182.77%	67.50 95.48	11.83 39.80	louder than fundamental louder than fundamental	-0.99% -0.34%	-0.26% -0.06%	7.5 11.5
9	1819.913 0.0064602533 607.771 0.0058388467	153.15% 138.42%	93.58 74.59	37.90 18.92	louder than fundamental louder than fundamental	-0.79% -0.60%	-0.15% -0.14%	9.6 2.6
11	2229.340 0.00455123	107.90%	97.09	41.42	louder than fundamental	-0.56%	-0.10%	1.1
12 1	2433.800 0.0044952667 203.816 0.0042181667	106.57% 100.00%	98.61 55.68	42.93 0.00	louder than fundamental	-0.49% 0.00%	-0.09% 0.00%	2.6 7.7
13 14	2655.813 0.0037151 2859.240 0.0032157233	88.07% 76.24%	100.12 101.40	44.45 45.72	all harmonic partials louder than fundamental very flat, rest slightly sharp	0.23% 0.20%	0.04% 0.03%	4.1 5.4
7	1503.690 0.00301149	71.39%	90.28	34.60	INHARMONIC INHARMONIC	5.40%	1.02%	6.3
6 8	1302.850 0.00289562 1708.173 0.0027256367	68.65% 64.62%	87.79 92.48	32.12 36.81	INHARMONIC	6.54% 4.76%	1.26% 0.88%	3.8 8.5
4 15	894.107 0.0025949833 3058.513 0.0024300933	61.52% 57.61%	81.28 102.57	25.60 46.89	INHARMONIC	9.67% 0.04%	2.01% 0.01%	9.3 6.6
5	1105.053 0.00206045	48.85%	84.94	29.27	INHARMONIC	8.44%	1.68%	0.9
16 10	3262.473 0.0019923767 2110.130 0.00197328	47.23% 46.78%	103.68 96.14	48.01 40.46	INHARMONIC	0.04% 3.53%	0.01% 0.63%	7.7 0.1
9	1905.977 0.0016682257 2298.937 0.0010425507	39.55% 24.72%	94.38 97.62	38.70 41.95	INHARMONIC INHARMONIC	3.91% 2.54%	0.71% 0.45%	10.4 1.6
3 13	703.620 0.000812774 2740.323 0.0006866227	19.27%	77.13	21.45	INHARMONIC INHARMONIC	15.07%	3.25% 0.58%	5.1
14	2943.520 0.0006607277	16.28% 15.66%	100.67 101.90	44.99 46.23	INHARMONIC	3.42% 3.16%	0.53%	4.7 5.9
12 2	2540.520 0.0006211447 505.855 0.0003881433	14.73% 9.20%	99.35 71.41	43.68 15.74	INHARMONIC INHARMONIC	3.87% 24.10%	0.67% 5.52%	3.4 11.4
	Bottom – Staccato – A	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	sion (Pitch)	ch Class
	Frequency Amplitude				ALL HARMONIC PARTIALS	0.68%		3.9
NHN 6	Frequency Amplitude 1309.960 0.0214124333	339.69%	87.89 90.56	31.14 33.81			0.13%	6.6
NHN 6 7 8	Frequency 1309.960 1528.527 1744.947	339.69% 334.59% 299.28%	90.56 92.85	33.81 36.10	LOUDER THAN FUNDAMENTAL.	0.69% 0.58%	0.13% 0.11%	6.6 8.9
NHN 6 7 8 9 5	Frequency 1309.960 0.0214124333 1528.527 0.0210904333 1744.947 0.0188646333 1966.067 0.0179480333 1091.373 0.0175645333	339.69% 334.59% 299.28% 284.73% 278.65%	90.56 92.85 94.92 84.73	33.81 36.10 38.17 27.98		0.69% 0.58% 0.73% 0.65%	0.13% 0.11% 0.13% 0.13%	8.9 10.9 0.7
NHN 6 7 8 9	Frequency 1309.960 0.0214124333 1528.527 0.0210904333 1744.947 0.0188646333 1966.067 0.0179480333	339.69% 334.59% 299.28% 284.73%	90.56 92.85 94.92	33.81 36.10 38.17	LOUDER THAN FUNDAMENTAL. note that all harmonic	0.69% 0.58% 0.73%	0.13% 0.11% 0.13%	8.9 10.9
NHN 6 7 8 9 5 3	Frequency Amplitude 1309.960 0.0214124333 1528.527 0.0210904333 1744.947 0.0188646333 1091.373 0.0175645333 655.989 0.012605	339.69% 334.59% 299.28% 284.73% 278.65% 199.97%	90.56 92.85 94.92 84.73 75.91	33.81 36.10 38.17 27.98 19.16	LOUDER THAN FUNDAMENTAL. note that all harmonic	0.69% 0.58% 0.73% 0.65% 0.83%	0.13% 0.11% 0.13% 0.13% 0.19%	8.9 10.9 0.7 3.9

D 2

				Ap	opendix 4			
4 12	874.921 0.0095355367 2622.437 0.0073155233	151.28% 116.06%	80.90 99.90	24.15 43.15		0.86% 0.77%	0.18% 0.13%	8.9 3.9
13	2838.837 0.00695313	110.31%	101.28	44.53		0.70%	0.12%	5.3
1 5	216.859 0.0063034433 1191.843 0.0006884877	100.00% 10.92%	56.75 86.25	0.00 29.50	INHARMONIC	0.00% 9.92%	0.00% 1.93%	8.8 2.3
4	949.669 0.0006116197 2512.457 0.0005839013	9.70%	82.32	25.57 42.41	INHARMONIC INHARMONIC	9.48%	1.94%	10.3
12 13	2730.990 0.0005808687	9.26% 9.22%	99.16 100.61	43.86	INHARMONIC	-3.45% -3.13%	-0.61% -0.54%	3.2 4.6
9	2038.957 0.0005108737	8.10%	95.55	38.80	INHARMONIC	4.47%	0.80%	11.5
Sound 11 B	ottom – Staccato – B							
	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Div		
6	1249.100 0.0242112 1497.860 0.0188013667	339.08% 263.32%	87.06 90.21	27.94 31.08	louder than fundamental louder than fundamental	0.45% 0.38%	0.09% 0.07%	3.1 6.2
4 7	1000.457 0.0185533 1748.497 0.0166782333	259.84% 233.58%	83.22 92.89	24.10 33.76	louder than fundamental louder than fundamental	0.57% 0.43%	0.12% 0.08%	11.2 8.9
8	1999.240 0.0161718333	226.49%	95.21	36.08	louder than fundamental	0.48%	0.09%	11.2
3 2	751.672 0.0131731 499.498 0.0101864633	184.49% 142.66%	78.27 71.20	19.15 12.07	louder than fundamental louder than fundamental	0.74% 0.42%	0.16% 0.10%	6.3 11.2
10 9	2500.673 0.00963392 2249.873 0.00924897	134.92% 129.53%	99.08 97.25	39.96 38.13	louder than fundamental louder than fundamental	0.55% 0.52%	0.10% 0.09%	3.1 1.3
11	2749.317 0.00749477	104.97%	100.72	41.60	louder than fundamental	0.50%	0.09%	4.7
1 12	248.705 0.0071402467 2997.947 0.0064111167	100.00% 89.79%	59.12 102.22	0.00 43.10	note that all harmonic	0.00% 0.45%	0.00%	11.1 6.2
13 14	3248.577 0.00482498 3501.377 0.00346064	67.57% 48.47%	103.61 104.91	44.49 45.78	partials are quite sharp	0.48% 0.56%	0.08%	7.6 8.9
15	3749.900 0.0027423533	38.41%	106.10	46.97		0.52%	0.08%	10.1
16 17	3998.330 0.0017121567 4249.243 0.00165548	23.98% 23.19%	107.21 108.26	48.08 49.14		0.48% 0.50%	0.08% 0.08%	11.2 0.3
18 19	4500.150 0.00148255 4748.570 0.0013836467	20.76% 19.38%	109.25 110.18	50.13 51.06		0.52% 0.49%	0.08%	1.3 2.2
12	2917.307 0.0001779803	2.49%	101.75	42.63	INHARMONIC	-2.25%	-0.39%	5.7
10	2416.430 0.0001628173	2.28%	98.49	39.36	INHARMONIC	-2.84%	-0.50%	2.5
Sound 12 B	ottom – Staccato – C#							
NHN 4	Frequency Amplitude / 1099.430 0.0183146333	Amp Ratio 254.63%	Pitch (MIDI #) 84.85	Interval from Fundamental 23.82	Notes louder than fundamental	Diversion (Hz) Div	ersion (Pitch) Pi -0.21%	itch Class 0.9
5	1377.340 0.0177785	247.17%	88.76	27.72	louder than fundamental	-0.82%	-0.16%	4.8
7 6	1927.037 0.0148432667 1651.040 0.0143012667	206.37% 198.83%	94.57 91.89	33.53 30.86	louder than fundamental louder than fundamental	-0.88% -0.93%	-0.16% -0.18%	10.6 7.9
3	827.571 0.0112497 2200.657 0.010379	156.40% 144.30%	79.94 96.87	18.90 35.83	louder than fundamental louder than fundamental	-0.68% -0.96%	-0.15% -0.17%	7.9 0.9
8 2	549.918 0.01032445	143.54%	72.86	11.83	louder than fundamental	-1.00%	-0.24%	0.9
9	2476.703 0.0088031633 277.746 0.00719272	122.39% 100.00%	98.91 61.04	37.88 0.00	louder than fundamental	-0.92% 0.00%	-0.16% 0.00%	2.9 1.0
10 11	2752.093 0.0068120633 3026.207 0.00578119	94.71% 80.38%	100.74 102.38	39.70 41.35	note that all harmonic partials are very flat	-0.91% -0.95%	-0.16% -0.16%	4.7 6.4
9	2555.353 0.000212091	2.95%	99.46	38.42	INHARMONIC	2.23%	0.38%	3.5
Sound 13 P	ottom – Staccato – D#							
NHN	Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Div		
5 4	1547.670 0.0251084333 1236.457 0.0315969333	268.66% 338.08%	90.77 86.89	27.79 23.90	louder than fundamental louder than fundamental	-0.45% -0.58%	-0.09% -0.12%	6.8 2.9
3								40.0
		218.90%	81.98	18.99	louder than fundamental	-0.17%	-0.03%	10.0
7 6	2167.663 0.0157962333 1858.963 0.0125041333	169.02% 133.79%	96.61 93.95	33.62 30.96	louder than fundamental louder than fundamental	-0.41% -0.35%	-0.07% -0.07%	0.6 9.9
7 6	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.012127	169.02% 133.79% 129.76%	96.61 93.95 74.95	33.62 30.96 11.96	louder than fundamental louder than fundamental louder than fundamental	-0.41% -0.35% -0.25%	-0.07% -0.07% -0.06%	0.6 9.9 2.9
7 6 2 8 1	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.012127 2479.153 0.01046712 310.927 0.0093459467	169.02% 133.79% 129.76% 112.00% 100.00%	96.61 93.95 74.95 98.93 62.99	33.62 30.96 11.96 35.94 0.00	louder than fundamental louder than fundamental louder than fundamental louder than fundamental	-0.41% -0.35% -0.25% -0.33% 0.00%	-0.07% -0.07% -0.06% -0.06% 0.00%	0.6 9.9 2.9 2.9 3.0
7 6 2 8 1 10 9	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.012127 2479.153 0.01046712 310.927 0.0093459467 3097.520 0.00742521 2787.843 0.0068974067	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80%	96.61 93.95 74.95 98.93 62.99 102.79 100.96	33.62 30.96 11.96 35.94 0.00 39.80 37.97	louder than fundamental louder than fundamental louder than fundamental	-0.41% -0.35% -0.25% -0.33% 0.00% -0.38% -0.38%	-0.07% -0.07% -0.06% -0.06% 0.00% -0.06% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8 5.0
7 6 2 8 1 10	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.012127 2479.153 0.01046712 310.927 0.0093459467 3097.520 0.00742521	169.02% 133.79% 129.76% 112.00% 100.00% 79.45%	96.61 93.95 74.95 98.93 62.99 102.79	33.62 30.96 11.96 35.94 0.00 39.80	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic	-0.41% -0.35% -0.25% -0.33% 0.00% -0.38%	-0.07% -0.07% -0.06% -0.06% 0.00% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8
7 6 2 8 1 10 9 11 4 9	2167.663 0.0157962333 1685.963 0.0125041333 620.300 0.0125127 2479.153 0.00146712 310.927 0.0093459467 3097.520 0.00742521 2787.843 0.0068974067 1327.543 0.0068974057 1327.543 0.0004392037	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.10%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.25% -0.33% 0.00% -0.38% -0.38% -0.39% 6.74% 2.60%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -1.30% 0.44%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5
7 6 2 8 1 10 9 11 4 9 8	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.0125127 2479.153 0.00146712 7309.7520 0.093459467 3097.520 0.0093459467 3406.917 0.0068974067 3406.917 0.0061425167 1327.543 0.0004392037 2571.143 0.000333507 2558.967 0.000373687 2705.880 0.0003662453	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.10% 4.00% 3.92%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% 6.74% 2.60% 2.88% -3.30%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.58%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5
7 6 2 8 1 10 9 11 4 9 8	2167.663 0.0157962333 620.300 0.0125041333 620.300 0.012127 2479.153 0.00146712 310.927 0.0093459467 3097.520 0.00742521 2787.843 0.0068974067 1327.543 0.0004392037 287.1143 0.0003383507 2558.967 0.000373687	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.10% 4.00%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.33% 0.00% -0.38% -0.38% -0.39% 6.74% 2.60%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -1.30% 0.44% 0.50%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5
7 6 2 8 1 10 9 11 4 9 8 9	2167.663 0.0157962333 620.300 0.0125041333 620.300 0.012127 2479.153 0.00146712 7309.7520 0.0093459467 3097.520 0.0093459467 3406.917 0.0061425167 1327.543 0.0004392037 2871.143 0.000383507 2558.967 0.000362453 2791.580 0.000362453 2391.767 0.000361514	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 65.72% 4.70% 4.10% 4.00% 3.92% 3.87%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% -0.74% -2.60% -2.88% -3.30% -3.85%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.58% -0.58%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4
7 6 2 8 1 10 9 9 11 4 9 8 9 8	2167.663 0.0157962333 1858.963 0.0125041333 620.300 0.0125127 2479.153 310.927 0.0093459467 3097.520 0.0093459467 3406.917 0.0068974067 3406.917 0.0068974067 327.543 0.000383507 2558.967 0.000373687 2705.880 0.0003662453 2391.767 0.0003520873	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 65.72% 4.70% 4.10% 4.00% 3.92% 3.87%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% -0.74% -2.60% -2.88% -3.30% -3.85%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.58% -0.58%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4
7 6 2 8 1 1 10 9 11 4 9 8 9 8 7	2167.663	169.02% 133.79% 132.76% 112.00% 100.00% 79.45% 4.70% 4.10% 4.00% 3.92% 3.87% 3.77%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% 6.74% 2.60% 2.88% -3.30% -3.85% -4.00%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.30% -0.50% -0.59% -0.73%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4 2.3 12.0
7 6 2 8 1 10 9 11 4 9 8 8 9 8 7	2167.663	169.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 3.92% 3.87% 3.77%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% -0.74% -2.60% -2.88% -3.30% -3.85% -4.00%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% 1.30% -0.58% -0.58% -0.69% -0.73%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4 2.3
7 6 2 8 1 10 9 11 14 4 9 8 9 8 7 7	2167.663	189.02% 133.79% 129.76% 112.00% 110.00% 79.45% 73.80% 65.72% 4.70% 4.00% 3.82% 3.87% 3.77%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	-0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% 6.74% 2.60% 2.88% -3.30% -3.85% -4.00%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0
7 6 2 2 8 1 1 10 9 9 11 1 4 9 8 9 8 7 7 Sound 14 B NHN 4 3 6 5 5 2	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.00% 3.82% 3.87% 3.77% Amp Ratio 183.29% 166.72% 142.97% 135.94%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.33% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% -3.30% -3.85% -4.00% Diversion (Hz) 0.26% 0.17% -0.28% -0.22% -0.22%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.50% -0.73% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0
Sound 14 B NHN Sound 17 Sound 17 NHN A A A A A A A A A A A A A	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.00% 3.92% 3.87% 3.87% 5.86% 183.29% 166.72% 158.30% 142.97% 158.30% 142.97% 135.94% 100.00% 81.53%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.33% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% -3.30% -3.85% -4.00% Diversion (Hz) 0.26% 0.17% -0.28% -0.22% 0.00% -0.27% 0.00%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.50% -0.50% -0.73% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0
7 6 2 8 1 1 10 9 11 4 9 8 9 8 7 8 NHN 4 3 6 5 2 1 1 7	2167.663	169 02% 133 79% 129 76% 112 00% 129 76% 112 00% 79 45% 73 80% 4.10% 4.10% 4.20% 3.87% 4.10% 4.10% 4.10% 183.29% 166 72% 158 30% 81.53 94% 100.00% 81.53% 72.34% 81.53% 72.34%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% -0.35% -0.25% -0.25% -0.33% -0.00% -0.38% -0.39% -0.74% -2.60% -2.88% -3.30% -3.4.00% Diversion (Hz) Div -0.26% -0.17% -0.28% -0.27% -0.00% -0.24% -0.24% -0.28%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.04% -0.05% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0 11.0 11.0 7.8 3.9 4.0 11.6 3.9
50und 14 B Sound 14 B NHN 11 7 8 9 11 7 8 9 11	2167.663	189 02% 133 79% 129 76% 112 00% 100 00% 79 45% 73 80% 65 72% 4.70% 4.00% 3.87% 3.87% 3.77% Amp Ratio 183 29% 166 72% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 142 97% 158 30% 168 48% 189 38 189%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.38% -0.39% 6.74% 2.60% 2.88% -3.30% -3.85% -4.00% Diversion (Hz) -0.26% -0.17% -0.28% -0.22% -0.27% -0.00% -0.24% -0.28% -0.28% -0.25% -0.26%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.04% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.04% -0.06% -0.04% -0.04% -0.04% -0.04% -0.04%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0 11.0 7.8 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.0 9.9 9.9
Sound 14 B NHN 4 3 6 5 2 11 10 10 11 14 4 9 8 8 9 8 7	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.00% 3.82% 65.72% 4.77% Amp Ratio 183.29% 166.72% 168.30% 142.97% 158.30% 142.97% 100.00% 81.53% 72.34% 68.48% 72.34% 88.18% 35.67% 22.61%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.33% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 3.30% 3.85% 4.00% Diversion (Hz) Div 0.26% 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.28% 0.28% 0.28% 0.28%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.50% -0.53% -0.05% -0.05% -0.04% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4 2.3 12.0 11.0 7.8 3.9 11.0 7.8 3.9 4.0 1.6 3.9 6.0 6.0 7.8 7.8 7.8 7.8
50und 14 B Sound 14 B NHN 11 7 8 9 11 7 8 9 11	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 4.70% 4.00%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 0.39% -3.30% -3.85% -4.00% Diversion (Hz) 0.17% 0.28% 0.22% 0.27% 0.00% -0.24% -0.28% -0.25% -0.26% -0.26%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.58% -0.58% -0.58% -0.05% -0.05% -0.05% -0.05% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05%	0.6 9.9 2.9 3.0 6.8 5.0 0.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 11.0 7.8 3.9 4.0 1.6 3.9 6.0 9.5 7.8
Sound 14 B NHN 4 3 6 5 2 11 10 10 11 14 4 9 8 8 9 8 7	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 65.72% 4.70% 4.00% 3.82% 65.72% 4.77% Amp Ratio 183.29% 166.72% 168.30% 142.97% 158.30% 142.97% 100.00% 81.53% 72.34% 68.48% 72.34% 88.18% 35.67% 22.61%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.33% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 3.30% 3.85% 4.00% Diversion (Hz) Div 0.26% 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.28% 0.28% 0.28% 0.28%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.50% -0.53% -0.05% -0.05% -0.04% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05%	0.6 9.9 9.9 2.9 3.0 6.8 5.0 8.4 4.4 1.1 5.5 3.5 4.4 2.3 12.0 11.0 7.8 3.9 11.0 7.8 3.9 9.1 10.7 7.8 3.9 11.0 7.8 8.9 1.0 9.0 9.0 1.0 9.0 9.0 1.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9
Sound 14 B NHN Sound 15 M	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.85% 4.70% 4.10% 4.00% 3.87% 3.87% 3.77% Amp Ratio 183.29% 166.72% 168.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 158.30% 142.97% 168.67% 122.61% 1.66%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.33% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 3.30% 3.85% 4.00% Diversion (Hz) Div 0.26% 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.22% 0.23% 0.22% 0.22% 0.25% 0.26% 0.28% 0.26%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.50% -0.73% -0.05% -0.04% -0.05% -0.04% -0.06% -0.06% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.05% -0.04% -0.05%	0.6 9.9 9.9 2.9 3.0 6.8 5.0 8.4 4.1 1.5.5 3.5 4.4 2.3 12.0 11.0 7.8 3.9 11.0 7.8 3.9 9.1 10.0 7.8 3.9 11.0 7.8 8.9 8.9 8.9 8.9 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.9 11.0 9.0 11.0 9.0 11.0 9.0 11.0 9.0 11.0 9.0 11.0 9.0 11.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 4.70% 4.00%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.30% 2.88% 3.30% -3.85% 4.00% Diversion (Hz) Diversion (Hz) 0.26% 0.22% 0.27% 0.00% 0.22% 0.27% 0.00% 0.28% 0.25% 0.25% 0.26% 0.26% 0.26% 0.27% 0.00%	-0.07% -0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.58% -0.58% -0.05% -0	0.6 9.9 2.9 3.0 6.8 5.0 0.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 11.0 1.6 3.9 6.0 9.5 7.8 11.0 8.6
Sound 14 B NHN Sound 15 M NHN Summary	2167.663	189.02% 133.79% 129.76%, 112.00% 129.76%, 112.00% 79.45% 73.80% 4.70% 4.00% 4.70% 4.00% 4.70% 4.00% 4.	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66	louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.330% 2.85% 4.00% Diversion (Hz) 0.26% 0.22% 0.27% 0.00% 0.22% 0.22% 0.27% 0.00% 0.24% 0.28% 0.25% 0.25% 0.26% 0.26% 0.26% 0.26% 0.26% 0.26% 0.26% 0.26%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.58% -0.58% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06% -0.05% -0.06% -0.05% -0.06% -0.05% -0.06% -0.05% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 0.8 4.1 1.5.5 3.5 5.4 4.4 2.3 12.0 itch Class 3.9 4.0 1.0 1.0 1.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 6.0 9.5 7.8 11.0 8.6
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN Sound 15 M NHN Sound 15 M NHN 2 3 4 1	2167.663	189.02% 133.79% 129.76% 112.00% 129.76% 112.00% 79.45% 73.80% 4.70% 4.10% 4.00% 3.22% 3.77% 3.27% 3.77% 4.00% 3.22% 3.77% 4.00% 3.22% 3.77% 4.00	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes Louder than fundamental louder than fundamen	0.41% -0.41% -0.35% -0.25% -0.33% -0.00% -0.38% -0.39% -6.74% -2.60% -2.88% -3.30% -3.85% -4.00% Diversion (Hz) Div -0.26% -0.17% -0.28% -0.27% -0.00% -0.24% -0.25% -0.25% -0.25% -0.26% -0.26% -0.27% -0.00% -0.24% -0.28% -0.25% -0.26% -0.27% -0.00% -0.28% -0.25% -0.26% -0.27% -0.00% -0.26% -0.28% -0.28% -0.29% -0.26% -0.28% -0.26% -0.28% -0.26% -0.06% -0.0	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.08% -0.09% -0.09% -0.09%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 0.8 4.1 1.5.5 3.5 5.4 4.4 2.3 12.0 itch Class 3.9 4.0 1.0 1.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 1.6 3.9 5.2 5.2 5.2 5.2
Sound 14 B NHN Sound 15 M NHN	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 3.82% 3.87% 3.87% 3.87% 3.87% 3.87% 4.10%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.96 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	0.41% 0.35% 0.25% 0.25% 0.38% 0.39% 6.74% 2.80% 2.88% 3.30% 3.85% 4.00% Diversion (Hz) 0.26% 0.28% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 4.73% Diversion (Hz) 0.26% 0.26% 0.28% 0.25% 0.26% 0.28% 0.25% 0.26% 0.28% 0.25% 0.26% 0.25% 0.38%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.50% -0.05%	0.6 9.9 2.9 3.0 6.8 5.0 0.8 4.1 1.5.5 3.5 5.4 4.4 2.3 12.0 itch Class 3.9 11.0 11.0 7.8 3.9 4.0 11.0 8.6 itch Class 5.7 8 11.0 8.6 itch Class 5.2 5.2 5.2 5.2 9.0 0.2
Sound 14 B NHN 4 3 6 5 2 1 1 10 10 12 5 Sound 15 NHN 2 3 4 1 5 6 8	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 3.92% 3.87% 3.77% Amp Ratio 183.29% 158.30% 145.53% 158.30% 145.54% 100.00% 20.53% 119.68%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes Louder than fundamental louder than fundamen	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.330% -3.85% -4.00% Diversion (Hz) 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% -0.22% 0.22% 0.27% 0.00% 0.24% -0.28% 0.25% 0.25% 0.26% 0.51% 0.00% 0.41% 0.38% 0.00% 0.41% 0.38% 0.00%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.58% -0.58% -0.58% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06% -0.05% -0.05% -0.05% -0.06% -0.05% -0.06% -0.05% -0.06%	0.6 9.9 9.9 2.9 3.0 6.8 5.0 0.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 4.0 1.6 3.9 6.0 9.5 7.8 7.8 7.8 7.8 7.8 7.8 7.9 7.8 7.8 7.9 7.8 7.8 7.9 7.8 7.8 7.9 7.8 7.8 7.9 7.8 7.8 7.9 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN NHN Sound 15 M NHN Sound 16 M NHN Sound 17 M NHN Sound 18 M NHN NHN Sound 18 M NHN Sound 18 M NHN NHN Sound 18 M NHN Sound 18 M NHN Sound 18 M NHN Sound 18 M NHN Sound 18	2167.663	189.02% 133.79% 129.76% 112.00% 129.76% 112.00% 79.45% 73.80% 4.70% 4.70% 4.70% 4.70% 4.70% 4.00% 4.70% 4.00	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65 Pitch (MIDI #) 77.19 84.17 89.17 65.24 93.03 96.19 101.18 98.88 103.21	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64 37.97	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.30% 2.30% 2.385% 4.00% Diversion (Hz) 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.25% 0.25% 0.25% 0.26% 0.25% 0.26% 0.26% 0.26% 0.28% 0.29% 4.73% Diversion (Hz) 0.38% 0.00%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.58% -0.58% -0.05%	0.6 9.9 2.9 3.0 6.8 5.0 6.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 11.0 1.0 7.8 3.9 4.0 1.6 3.9 6.0 9.5 7.8 11.0 8.6
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN Sound 15 M NHN Sound 16 M NHN Sound 17 M NHN Sound 18 M NHN Sound 18 M	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.00% 3.82% 3.87% 3.77% Amp Ratio 183.29% 166.72% 168.39% 142.97% 183.53% 72.34% 68.48% 72.34% 68.48% 10.00% 119.66% 119.66% 119.66% 119.66% 119.68% 110.00% 119.68% 110.00% 119.68% 110.00% 119.68% 110.00%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	0.41% 0.35% 0.25% 0.25% 0.38% 0.38% 0.39% 6.74% 2.60% 2.88% 3.30% -3.85% -4.00% Diversion (Hz) 0.26% 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.28% 0.22% 0.25%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05%	0.6 9.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 5.4 4.4 2.3 3.1 2.0 itch Class 3.9 11.0 11.0 7.8 3.9 4.0 11.0 8.6 itch Class 5.2 5.2 5.2 9.0 9.0 9.0 5.2 2.9
Sound 14 B NHN NHN 10 Sound 15 M NHN 11 10 10 11 10 12 5	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.10% 4.00% 183.29% 188.30% 148.30% 185.30% 186.72% 188.30% 186.72% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 19.86% 100.00% 100.00% 119.68% 1	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64 37.97 41.46 39.80 42.95	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	Diversion (Hz)	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 6.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 11.0 7.8 8.7 11.0 8.6 itch Class 11.0 8.6
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN Sound 15 M NHN Sound 15 M NHN NHN NHN NHN NHN Sound 15 M NHN NHN NHN Sound 15 M NHN Sound 16 M NHN Sound 17 M Sound 18 M S	2167.663	169 02% 133 79% 129 76% 112 100% 129 76% 112 100% 79 45% 73 80% 4 10% 4 00% 3 82% 3 87% 3 3.77% Amp Ratio 183 29% 158 30% 145 29% 81 53% 72 34% 158 30% 14 28% 158 30% 158 30% 168 30% 178 30% 188 30% 188 30% 188 30% 19	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65 Pitch (MIDI #) 77.19 84.17 89.17 65.24 93.03 96.19 101.18 98.88 103.21 106.69	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 33.94 37.97 41.46 39.80	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.330% 2.85% 0.17% 0.26% 0.17% 0.28% 0.22% 0.27% 0.00% 0.24% 0.28% 0.25% 0.26% 0.28% 0.25% 0.26% 0.26% 0.26% 0.26% 0.27% 0.00% 0.24% 0.28% 0.25% 0.26% 0.26% 0.27% 0.00% 0.28% 0.25% 0.26% 0.27% 0.00% 0.31% 0.31% 0.31% 0.35% 0.31% 0.35% 0.31% 0.35% 0.31% 0.35% 0.31% 0.35% 0.31%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06% -0.06% -0.07% -0.06% -0.05% -0.06% -0.05% -0.05% -0.06% -0.05%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 4.0 11.0 6.0 9.5 7.8 3.9 4.0 11.0 6.0 9.5 7.8 11.0 6.0 9.5 7.8 11.0 11.0 7.8 8.6
Sound 14 B NHN 4 3 6 5 2 11 10 10 12 5 Sound 15 NHN 2 3 4 1 15 6 8 7 9 11 10 12 13	2167.663	189.02% 133.79% 129.76% 112.00% 100.00% 79.45% 73.80% 4.70% 4.10% 4.10% 4.00% 183.29% 188.30% 148.30% 185.30% 186.72% 188.30% 186.72% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 188.30% 19.86% 100.00% 100.00% 119.68% 1	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64 37.97 41.46 39.80 42.95	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC Notes louder than fundamental	Diversion (Hz)	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 6.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 11.0 7.8 8.7 11.0 8.6 itch Class 11.0 8.6
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN 10 12 13 Sound 16 M	2167.663	169 0.2% 133 79% 129 76% 112 0.0% 100 0.0% 79 45% 73 80% 4 70% 4 10% 4 10% 4 10% 183 29% 166 72% 158 30% 142 97% 158 30% 142 97% 166% 168 46% 81 166% 168 46% 81 166% 168 46% 168 46% 168 46% 168 46% 17 20% 19 86% 119 86% 119 86% 119 86% 119 86% 110 0.0% 117 20% 118 77% 118 77% 118 78% 119 86% 110 0.0% 110 0.0% 111 4 28% 111 4 28% 111 4 28% 112 97% 118 77% 1	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.96 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 38.40 37.97 41.46 39.80 42.95 44.34	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.39% 6.74% 2.80% 2.88% -3.30% -3.85% -4.00% Diversion (Hz) 0.26% 0.28% 0.22% 0.22% 0.22% 0.22% 0.22% 0.28% 0.28% 0.28% 0.28% 0.25% 0.28% 0.28% 0.25% 0.28% 0.28% 0.25% 0.35% 0.31% 0.35% 0.31% 0.35% 0.35% 0.35% 0.35%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 6.8 5.0 6.8 4.1 1.5.5 3.5 4.4 2.3 12.0 6.8 3.9 11.0 11.0 7.8 3.9 4.0 1.6 6.3 9.5 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN Sound 16 M NHN Sound 17 M Sound 18 M So	2167.663	169 0.2% 133 79% 129 76% 112 0.0% 100 0.0% 79 45% 73 80% 4 70% 4 10% 4 70% 4 10% 4 83 22% 3 87% 3 87% 3 87% 6 183 29% 166 72% 158 30% 142 93% 158 30% 142 93% 158 36% 158 36% 158 36% 158 36% 158 36% 158 37%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 106.95 92.65 Pitch (MIDI #) 77.19 84.17 65.24 93.03 96.19 101.18 98.88 103.21 106.69 105.04 108.19 109.58	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64 37.97 41.46 39.80 42.95 44.34	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.39% 6.74% 2.60% 2.88% 0.39% 6.74% 3.30% 3.85% 4.00% Diversion (Hz) 0.17% 0.28% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.23% 0.02% 0.24% 0.028% 0.026% 0.25% 0.26% 0.25% 0.26% 0.25% 0.26% 0.25% 0.035% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06%	0.6 9.9 9.9 2.9 2.9 3.0 6.8 5.0 6.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 11.0 7.8 8.7 11.0 8.6 itch Class 10.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2
Sound 15 Min 2 3 4 1 1 5 6 6 8 8 7 9 11 10 12 13 Sound 16 Min 1 3 3 4 1 1 5 5 6 6 8 8 7 9 11 10 12 13 13 Sound 16 Min 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2167.663	169 02% 133 79% 129 76% 112 00% 129 76% 112 00% 129 76% 112 00% 65 72% 4 70% 4 10% 4 00% 3 87% 4 70% 3 32% 3 87% 183 29% 3 87% 185 30% 142 97% 185 30% 142 97% 185 30% 142 97% 185 30% 142 97% 185 30% 142 97% 185 30% 142 97% 185 30%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 103.80 106.95 92.65 Pitch (MIDI #) 77.19 84.17 89.17 65.24 93.03 96.19 101.18 98.88 103.21 106.69 105.04 108.19 109.58	33.62 30.96 11.96 30.96 11.96 30.90 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 8.93 23.93 0.00 27.79 33.64 37.97 41.46 39.80 42.95 44.34 Interval from Fundamental 0.00 18.95	louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC I	0.41% 0.35% 0.25% 0.25% 0.38% 0.00% 0.38% 0.39% 6.74% 2.60% 2.88% 2.330% 2.385% 2.00% 0.26% 0.17% 0.22% 0.27% 0.00% 0.22% 0.27% 0.00% 0.24% 0.25% 0.26% 0.25% 0.26% 0.25% 0.26% 0.25% 0.26% 0.27% 0.00% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.01% 0.00	-0.07% -0.06%	0.6 9.9 2.9 2.9 3.0 6.8 5.0 8.4 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 3.9 4.0 1.6 3.9 4.0 1.6 3.9 4.0 2.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2
Sound 14 B NHN Sound 15 M NHN Sound 15 M NHN Sound 16 M NHN Sound 17 M Sound 18 M So	2167.663	169 0.2% 133 79% 129 76% 112 0.0% 100 0.0% 79 45% 73 80% 4 70% 4 10% 4 70% 4 10% 4 83 22% 3 87% 3 87% 3 87% 6 183 29% 166 72% 158 30% 142 93% 158 30% 142 93% 158 36% 158 36% 158 36% 158 36% 158 36% 158 37%	96.61 93.95 74.95 98.93 62.99 102.79 100.96 104.43 88.12 101.47 99.48 100.45 98.31 95.97 Pitch (MIDI #) 87.94 82.98 94.96 91.81 75.94 63.99 97.63 99.94 101.98 105.45 106.95 92.65 Pitch (MIDI #) 77.19 84.17 65.24 93.03 96.19 101.18 98.88 103.21 106.69 105.04 108.19 109.58	33.62 30.96 11.96 35.94 0.00 39.80 37.97 41.45 25.13 38.48 36.49 37.46 35.32 32.98 Interval from Fundamental 23.95 18.99 30.97 27.83 11.95 0.00 33.65 35.95 38.00 41.47 39.81 42.97 28.66 Interval from Fundamental 11.96 18.93 23.93 0.00 27.79 30.96 35.95 33.64 37.97 41.46 39.80 42.95 44.34	louder than fundamental louder than fundamental louder than fundamental louder than fundamental note that all harmonic partials are quite flat INHARMONIC	0.41% 0.35% 0.25% 0.25% 0.38% 0.39% 6.74% 2.60% 2.88% 0.39% 6.74% 3.30% 3.85% 4.00% Diversion (Hz) 0.17% 0.28% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.22% 0.23% 0.02% 0.24% 0.028% 0.026% 0.25% 0.26% 0.25% 0.26% 0.25% 0.26% 0.25% 0.035% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35% 0.35%	-0.07% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.06%	0.6 9.9 9.9 2.9 2.9 3.0 6.8 5.0 6.8 4.1 5.5 3.5 4.4 2.3 12.0 itch Class 11.0 7.8 8.7 11.0 8.6 itch Class 10.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2

				Aı	opendix 4			
6 8	2824.033 0.0008146857 3763.670 0.0004447717	4.39% 2.40%	101.19 106.16	30.96 35.94		-0.32% -0.36%	-0.05% -0.06%	5.2 10.2
7	3292.473 0.0004354173	2.35%	103.84	33.62		-0.38%	-0.06%	7.8
9	4232.137 0.000209822 4705.263 0.0002013253	1.13% 1.08%	108.19 110.02	37.97 39.80		-0.41% -0.35%	-0.07% -0.05%	0.2 2.0
							3332	
	/liddle – f – high		D'1 -1- (841D1-4)		Notes	Birmin (III)	main (Ditab)	
NHN 3	Frequency Amplitude 1413.017 0.0690008333	Amp Ratio 163.26%	89.20	Interval from Fundamental 18.98	Notes louder than fundamental	Diversion (Hz) Dive	-0.05%	5.2
4 2	1883.423 0.0579087333	137.02%	94.17	23.95 11.93	louder than fundamental louder than fundamental	-0.29% -0.38%	-0.05%	10.2
5	940.811 0.0547573667 2353.837 0.0477567333	129.56% 113.00%	82.16 98.03	27.81	louder than fundamental	-0.31%	-0.08% -0.05%	10.2 2.0
1	472.211 0.0422637	100.00%	70.22	0.00	note that all harmonic	0.00%	0.00% -0.07%	10.2
6 7	2822.453 0.0391184667 3294.660 0.0304248333	92.56% 71.99%	101.18 103.85	30.95 33.63	partials are quite flat	-0.38% -0.33%	-0.05%	5.2 7.9
8	3765.023 0.0214155333 1805.603 0.0005019927	50.67% 1.19%	106.17 93.44	35.94 23.22	INHARMONIC	-0.34% -4.41%	-0.05% -0.83%	10.2 9.4
4	1003.003 0.0003019921	1.1370	33.44	20.22	INTERMIONIC	-4.4170	-0.0370	3.4
	Middle – Staccato – F#							
NHN 4	Frequency Amplitude 1 1470.580 0.0332461333	Amp Ratio 180.61%	Pitch (MIDI #) 89.89	Interval from Fundamental 24.04	Notes louder than fundamental	Diversion (Hz) Dive 0.23%	rsion (Pitch) Pitc 0.04%	ch Class 5.9
3	1100.120 0.0272969667	148.29%	84.87	19.01	louder than fundamental	-0.03%	-0.01%	0.9
5 2	1837.320 0.0225117333 733.552 0.0203142	122.29% 110.36%	93.74 77.85	27.89 12.00	louder than fundamental louder than fundamental	0.18% -0.01%	0.03%	9.7 5.8
1	366.814 0.0184077333	100.00%	65.85	0.00	Policy Programme	0.00%	0.00%	5.9
6 7	2204.087 0.0165004333 2573.110 0.0130318667	89.64% 70.80%	96.90 99.58	31.04 33.72	very little diversion across harmonic partials,	0.15% 0.21%	0.03% 0.04%	0.9 3.6
8 9	2939.847 0.0128107333	69.59% 63.22%	101.88	36.03	•	0.18% 0.16%	0.03% 0.03%	5.9 7.9
10	3306.560 0.0116376333 3677.053 0.00853704	46.38%	103.92 105.76	38.07 39.91		0.16%	0.03%	9.8
11 12	4043.980 0.0068748667 4410.493 0.00431995	37.35% 23.47%	107.40 108.90	41.55 43.05		0.22% 0.20%	0.04% 0.03%	11.4 0.9
13	4777.280 0.0035327233	19.19%	110.29	44.44		0.18%	0.03%	2.3
8 4	2857.580	2.61% 2.65%	101.39 88.86	35.54 23.01	INHARMONIC INHARMONIC	-2.62% -5.57%	-0.45% -1.10%	5.4 4.9
10	3591.590 0.0004222707	2.29%	105.35	39.50	INHARMONIC	-2.09%	-0.35%	9.3
8 7	3011.067 0.0004113503 2487.510 0.0004097807	2.23% 2.23%	102.30 98.99	36.45 33.14	INHARMONIC INHARMONIC	2.61% -3.12%	0.44% -0.55%	6.3 3.0
9	3224.700 0.0003725003	2.02%	103.48	37.63	INHARMONIC	-2.32%	-0.39%	7.5
Cound 10 4	Aintella Channata CH							
			Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Dive		
3 4	1250.100 0.0376870667 1669.037 0.0303321333	170.61% 137.31%	87.08 92.08	18.94 23.94	louder than fundamental louder than fundamental	-0.48% -0.35%	-0.10% -0.07%	3.1 8.1
5	2087.700 0.0242343667	109.71%	95.96	27.81	louder than fundamental	-0.28%	-0.05%	12.0
1 2	418.718 0.0220901 837.537 0.0175483	100.00% 79.44%	68.14 80.14	0.00 12.00	due to shortness of sample, 3	0.00% 0.01%	0.00%	8.1 8.1
6	2506.333 0.0158790667	71.88%	99.12	30.98	readings occur very close together	-0.24%	-0.04%	3.1
7 8	2918.667 0.0157496667 3337.200 0.0132538	71.30% 60.00%	101.76 104.08	33.62 35.94	hence so many inharmonic frequencies consistent across all 3	-0.42% -0.37%	-0.07% -0.06%	5.8 8.1
8 5 7	2002.787 0.0005940097	2.69%	95.24	27.10	INHARMONIC	-4.34%	-0.80%	11.2
4	2832.100 0.0004958933 1763.270 0.0004662747	2.24% 2.11%	101.24 93.03	33.09 24.89	INHARMONIC INHARMONIC	-3.38% 5.28%	-0.58% 0.97%	5.2 9.0
3	1346.510 0.0003766213	1.70%	88.36	20.22	INHARMONIC	7.19%	1.38%	4.4
5 2	2180.970 0.0003524687 786.446 0.000342172	1.60% 1.55%	96.71 79.05	28.57 10.91	INHARMONIC INHARMONIC	4.17%	0.74%	0.7
				10.91		-6.09%	-1.36%	7.1
2	890.001 0.0003301447	1.49%	81.20	13.05	INHARMONIC	6.28%	1.32%	7.1 9.2
2 7 5								
2	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179	1.49% 1.44% 1.38% 1.37%	81.20 102.31 94.57 78.10	13.05 34.17 26.43 9.96	INHARMONIC INHARMONIC INHARMONIC INHARMONIC	6.28% 2.80% -7.96% -11.14%	1.32% 0.47% -1.50% -2.55%	9.2 6.3 10.6 6.1
2 4 3	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007	1.49% 1.44% 1.38% 1.37% 1.28% 1.17%	81.20 102.31 94.57 78.10 89.98 89.35	13.05 34.17 26.43 9.96 21.83 21.20	INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45%	1.32% 0.47% -1.50% -2.55% -2.35% 2.51%	9.2 6.3 10.6 6.1 6.0 5.3
2 4 3 3	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002856007 1099.753 0.0002514727	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14%	81.20 102.31 94.57 78.10 89.98 89.35 84.86	13.05 34.17 26.43 9.96 21.83 21.20 16.72	INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45%	1.32% 0.47% -1.50% -2.55% -2.35% 2.51% -2.64%	9.2 6.3 10.6 6.1 6.0 5.3 0.9
2 4 3 3 4 6	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000216952	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98%	1.32% 0.47% -1.50% -2.55% -2.35% 2.51% -2.64% 1.78% 0.85%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0
2 4 3 3 4	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.00025474727 1841.343 0.0002235867	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64	INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94%	1.32% 0.47% -1.50% -2.55% -2.35% -2.51% -2.64% 1.78%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8
2 4 3 3 4 6	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000216952	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98%	1.32% 0.47% -1.50% -2.55% -2.35% 2.51% -2.64% 1.78% 0.85%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0
2 4 3 3 4 6 6	890.001	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98% 0.87%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% -13.45% -12.45% 9.94% 4.98% 6.31%	1.32% 0.47% -1.50% -2.55% -2.35% -2.64% -2.64% 0.85% 1.07%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2
2 4 3 3 4 6 6	890.001	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98% 0.87%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98%	1.32% 0.47% -1.50% -2.55% -2.35% -2.64% -2.64% 0.85% 1.07%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2
Sound 20 ANHN	890.001 0.0003301447 3012.977 0.000318927 1926.950 0.000304954 744.171 0.000308179 1477.943 0.000285607 1499.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 ##################################	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98% 0.87% Amp Ratio 132.24% 122.56%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% -2.64% 1.78% 0.85% 1.07%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2
2 4 4 3 3 4 6 6 6 6 Sound 20 A NHN 3 4 1 1 2	890.001 0.0003301447 3012.977 0.000318967 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002855007 1099.753 0.0002614727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0204783333 440.584 0.0232287333 440.584 0.0232287333 479.345 0.0204671667	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) 0.00% -0.21%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% -2.64% 1.78% 0.85% 1.07% -0.10% -0.10% -0.008% 0.00%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 ch Class 4.0 8.9 9.0
2 4 4 3 3 4 6 6 6 6 8 8 9 1 1 1 2 1 2 5 5	890.001 0.0003301447 3012.977 0.000318977 1926.950 0.000304954 744.171 0.00033179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 //iddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0284692333 440.584 0.0232287333 879.345 0.0204671667 2192.320 0.0183622667	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) 0.052% -0.43% 0.00% -0.21% -0.48%	1.32% 0.47% -1.50% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% -0.00% -0.04% -0.04% -0.09%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 ch Class 4.9 9.0 9.0
2 4 4 3 3 4 6 6 6 6 8 8 9 1 1 2 5 5 6 6 6 6	890.001 0.0003301447 3012.977 0.000318927 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000219572 8641.343 0.000216952 2670.893 0.000192788 Middle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0284692333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 479.345 0.0008473603	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.01% 0.98% 0.87% Amp Ratio 132,24% 100.00% 88.11% 79.05% 59.77%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.98	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00%	1.32% 0.47% -1.50% -2.55% -2.51% -2.61% 0.85% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.00% -0.00% -0.00% -0.00% -0.09% -0.09% -0.71%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.2 ch Class 4.0 9.0 9.0 9.0 9.0 9.8 4.3
2 4 4 3 3 4 6 6 6 6 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282862 1425.163 0.0002855007 1099.753 0.0002614727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0204671867 2192.320 0.0183622867 2537.823 0.008473603 2974.960 0.0188628967 2573.823 0.008473603	1.49% 1.44% 1.38% 1.37% 1.20% 1.17% 1.01% 0.98% 0.87% 132.24% 122.56% 120.56% 190.75% 59.77% 3.65% 2.96%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54%	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% 0.00% -0.09% -0.09% -0.09% -0.09% -0.06% -0.71% -0.61%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 Ch Class 4.0 8.9 9.0 9.0 0.0 3.3 6.1
2 4 4 3 3 3 4 4 6 6 6 6 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	890.001 0.0003301447 3012.977 0.000318927 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000219572 8641.343 0.000216952 2670.893 0.000192788 Middle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0284692333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 440.584 0.032287333 479.345 0.0008473603	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.01% 0.98% 0.87% Amp Ratio 132,24% 100.00% 88.11% 79.05% 59.77%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00%	1.32% 0.47% -1.50% -2.55% -2.51% -2.61% 0.85% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.00% -0.00% -0.00% -0.00% -0.09% -0.09% -0.71%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.2 ch Class 4.0 9.0 9.0 9.0 9.0 9.8 4.3
2 4 4 3 3 4 6 6 6 6 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	890.001 0.0003301447 3012.977 0.000318977 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1099.753 0.0002514727 1841.343 0.0002235867 2637.397 0.000219572 2670.893 0.000192788 ##################################	1.49% 1.44% 1.38% 1.37% 1.20% 1.17% 1.01% 0.98% 0.87% 132.24% 122.56% 120.56% 190.75% 59.77% 3.65% 2.96%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54%	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% 0.00% -0.09% -0.09% -0.09% -0.09% -0.06% -0.71% -0.61%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 Ch Class 4.0 8.9 9.0 9.0 0.0 3.3 6.1
Sound 20 A NHN 3 4 4 6 6 7 2 Sound 21 A	890.001	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.01% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.09% 88.11% 79.05% 59.77% 3.65% 2.96% 2.78%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% 0.00% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 ch Class 4.0 9.0 0.8 4.0 3.3 6.1 7.1
Sound 20 A NHN 3 4 1 2 5 6 6 7 2 Sound 21 A NHN 3 3	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000330174 1477.943 0.000282862 1425.163 0.0002855007 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Andelle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.03084692333 879.346 0.0204671667 2192.320 0.0183622867 2192.320 0.0183622867 2192.320 0.0183622867 2192.320 0.0188628967 2537.823 0.008473603 2974.960 0.000686571 787.751 0.0006459727	1.49% 1.48% 1.38% 1.37% 1.28% 1.17% 1.01% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05% 2.78% Amp Ratio 144.58%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.08% -0.09% -0.09% -0.09% -0.09% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 4.2 2 4.1 2 4.2 4.2 4.2 4.1 6.1 6.1 7.1
2 4 4 3 3 4 6 6 6 6 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002855007 1099.753 0.0002614727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 1754.803 0.024671667 2192.320 0.0183622667 2537.823 0.0008473603 2974.960 0.000685717 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.040671667 2192.320 0.018362267 2633.980 0.018822867 2633.980 0.0006459727	1.49% 1.48% 1.38% 1.37% 1.28% 1.17% 1.14% 0.98% 0.87% Amp Ratio 132.24% 100.00% 88.11% 79.05% 59.77% 2.96% 2.78%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.94 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% -12.45% -19.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -0.36% -10.60% Diversion (Hz) Diversion (Hz) -0.56%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% 2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% 0.00% -0.06% -0.09% -0.06% -0.071% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 ch Class 4.0 9.0 0.8 4.0 0.8 4.1 7.1
Sound 20 A NHN NHN 3 4 4 1 2 5 6 6 7 2 Sound 21 A NHN 3 4 2 1	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282662 1425.163 0.0002585007 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 1754.803 0.024671867 2192.320 0.0183622667 2192.320 0.0183622667 2537.823 0.0008473603 2974.960 0.01086571 787.751 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.0400225667 1973.630 0.0400225667 1973.630 0.0400225667 1973.630 0.0400225667 1973.630 0.03053410333 987.267 0.000535410333 987.267 0.00052567	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.28% 1.17% 1.01% 0.98% 1.14% 1.01% 0.98% 1.22.56% 100.00% 88.11% 79.05% 59.77% 2.96% 2.78%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00	INHARMONIC	6.28% 2.280% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.20% -0.00%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.06% -0.04% -0.09% -0.66% -0.71% -0.66% -0.71% -0.66% -0.74% -0.99% -0.66% -0.74% -0.05% -0.05% -0.05% -0.04% -0.05% -0.04% -0.00%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 ch Class 4.0 9.0 0.8 4.0 3.3 6.1 7.1
2 4 4 3 3 4 6 6 6 6 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.00003371 1477.943 0.000282662 1425.163 0.0002585007 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle - Staccato - A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0307183333 1754.803 0.0304671867 2102.320 0.0138228967 2537.823 0.0008473803 387.267 0.0006459727 Aiddle - Staccato - B Frequency 1.0006459727	1.49% 1.48% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 0.87% Amp Ratio 132,24% 122,56% 120,56% 120,56% 2.78% Amp Ratio 144,58%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.25% -0.25% -0.20%	1.32% 0.47% -1.50% -2.55% -2.25% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitt -0.10% -0.08% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 2 2 2 4.2 2 3 3.3 6.1 7.1
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 2 Sound 21 A NHN 3 4 2 1 5 6 7 7	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000308179 1477.943 0.000282662 1425.163 0.000285007 1841.343 0.0002285607 2637.397 0.000214727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Middle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.024692333 440.584 0.024671667 2192.320 0.013822287333 440.584 0.024671667 2537.823 0.0008459727 Middle – Staccato – B Frequency 1481.543 0.0406252667 787.751 0.0006459727 Middle – Staccato – B Frequency 1481.543 0.0400252667 1973.630 0.0355410333 987.667 0.0006459727	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.29% 1.11% 0.98% 1.14% 1.01% 0.98% 1.22.56% 100.00% 88.11% 79.05% 59.77% 3.65% 2.96% 2.78% Amp Ratio 184.58% 163.90% 144.81% 100.00% 144.58% 163.90% 145.88% 163.90% 147.60% 146.63%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 30.98	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% -12.45% -19.44% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.16% -0.17% -0.25% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% 2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.00% -0.09% -0.06% -0.77% -0.61% -2.39% rsion (Pitch) Pitch -0.03% -0.03% -0.04% -0.03% -0.04% -0.03% -0.04% -0.03% -0.04% -0.03% -0.04%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.2 2 ch Class 8.9 9.0 9.0 9.0 9.0 11.0 11.0 11.0 11.0 1
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 2 Sound 21 A NHN 3 4 4 2 1 5 6 7 4 3	890.001 0.00033014477 1926.950 0.000380454 744.171 0.000318957 1477.943 0.000282662 1425.163 0.0002855007 1099.753 0.000214727 1841.343 0.0002235867 2637.397 0.000214727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0246718333 1754.803 0.024671867 2192.320 0.0183622667 2537.823 0.0008473803 2974.960 0.01382287333 40.584 0.024671867 2537.823 0.0008473803 2974.960 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.040625267 1973.630 0.0355410333 987.267 0.0006459727	1.49% 1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.29% 1.14% 1.01% 0.98% 1.22.56% 100.00% 88.11% 79.05% 59.77% 2.96% 2.78% Amp Ratio 184.58% 163.90% 140.81% 100.00% 440.81% 173.63% 47.60% 47.60% 168.89% 16.89%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 69.02 80.99 96.80 99.94 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% -12.45% -19.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -0.36% -10.60% Diversion (Hz) Diversion (Hz) -0.16% -0.25% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.52% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.20% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% 2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% 0.00% -0.06% -0.03% -0.03% -0.04% -0.03% -0.04% -0.03%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 ch Class 9.0 0.8 4.0 3.3 6.1 7.1
Sound 20 A NHN Sound 21 A Sound 21 A NHN NHN 3 4 2 1 Sound 21 A NHN 3 4 3 4 3 6	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000282862 1425.163 0.0002855007 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Andelle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.03084692333 879.346 0.0232287333 879.345 0.00084692333 879.345 0.0008469237 Andelle – Staccato – B Frequency 1.0008473603 1.0008473603 1.0008473603 1.00086571 787.751 0.0006459727	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 1.14% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05% 2.78% Amp Ratio 184.58% 163.99% 47.00% 92.37% 47.00% 16.88% 16.88% 16.88% 16.88%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 10.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% -13.45% -12.45% -9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.25% -0.20% -0.00% -0.17% -0.24% -0.20% -0.24% -0.20% -0.20% -0.17% -0.24% -0.20% -0.35% -3.33% -3.13%	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.08% -0.09% -0.09% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitc -0.03% -0.05% -0.05% -0.05% -0.03% -0.05% -0.03% -0.06% -0.03% -0.06% -0.17% -0.88% -1.17% -0.88% -1.17% -0.88%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 2 2 4.2 2 3.3 6.1 7.1 2 6.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0
Sound 20 ANN Sound 21 ANN Sound 22 ANN Sound 21 ANN Sound 22 ANN Sound 21 ANN Sound 22 ANN Sound	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.00003371 1477.943 0.000282662 1425.163 0.0002585007 1841.343 0.0002235667 2637.397 0.000216952 2670.893 0.000192788 Aiddle - Staccato - A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.03064692333 879.345 0.0204671667 2637.980 0.013822967 2537.823 0.0008473603 2974.960 0.010822267 787.751 0.0006459727 Aiddle - Staccato - B Frequency 1.0006459727	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 0.87% Amp Ratio 132,24% 122,56% 132,24% 122,56% 132,24% 22,56% 143,276% 2.78% Amp Ratio 184,58% 183,90% 144,61% 140,81% 140,81% 140,81% 140,81% 140,81% 140,81% 141,	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 69.02 80.99 96.80 99.94 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 23.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 10.06	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% -12.45% -19.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -0.36% -10.60% Diversion (Hz) Diversion (Hz) -0.16% -0.25% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.52% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.20% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.20% -0.20% -0.55% -0.	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% -0.04% -0.09% -0.06% -0.71% -0.65% -0.05% -0.05% -0.06% -0.03% -0.06% -0.03% -0.05% -0.05% -0.17% -0.10% -0.03% -0.05%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 2 2 2 3 4.0 11.0 11.0 11.0 11.0 11.0 12.9 6.0 8.7 10.2 5.5 9.5 9.5
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 7 2 Sound 21 A NHN 3 4 4 2 1 5 6 6 7 7 4 3 6 6 2 3 6 6 2 3	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000303179 1477.943 0.000228562 1425.163 0.0002258507 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 1754.803 0.030548333 140.584 0.0232287333 440.584 0.0232287333 440.584 0.0232287333 440.584 0.02032287333 2474.960 0.0108473603 2974.960 0.00086571 787.751 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.0400252667 1973.630 0.00368631 787.267 0.0006459727	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.21% 1.01% 0.98% 0.87% Amp Ratio 122.56% 100.00% 88.11% 79.05% 2.96% 2.78% Amp Ratio 144.58% 139.0% 140.81% 100.01% 144.58% 163.90% 140.81% 100.01% 16.88% 47.60% 16.88% 13.98% 10.98% 10.98% 10.98%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.03 102.48	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.20% -0.17% -0.29% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.29% -0.17% -0.29% -0.17% -0.29% -0.17% -0.29% -0.29% -0.17% -0.29% -0.29% -0.17% -0.29%	1.32% 0.47% -1.50% -2.55% -2.55% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.08% 0.00% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitch -0.03% -0.05% -0.04% -0.03% -0.04% -0.03% -0.03% -0.03% -0.03% -0.17% -0.17% -0.18% -0.05% -0.19% -0	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 ch Class 4.0 9.0 0.8 4.0 3.3 6.0 11.0 11.0 2.9 6.0 6.7 11.0 11.0 2.9 6.0 6.0 6.0 11.0 11.0 11.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6
Sound 20 A NHN 3 4 1 1 2 5 5 6 6 6 7 7 2 2 Sound 21 A NHN 3 4 2 1 1 5 6 6 7 7 4 4 3 3 6 6 2 3 3 6 6 3 3 6 3	890.001 0.0003301447 3012.977 0.000318967 1472.943 0.000282662 1425.163 0.0002285607 1481.343 0.0002235867 2637.397 0.000216952 2670.893 0.000214727 1841.343 0.0002235867 1314.823 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 154.803 0.0204871863 2192.320 0.018822867 2633.980 0.013822867 2633.980 0.013822867 2637.823 0.008473603 2974.960 0.00868571 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.400252667 1973.630 0.00386511 1481.543 0.0400252667 1973.630 0.00368511033 2468.837 0.020621833 2468.837 0.020621833 2488.837 0.020621833 2488.837 0.020621833 2488.837 0.0036414467 1481.543 0.0400252667 1973.630 0.00366367 1973.630 0.00366367 1973.630 0.00366361 1481.543 0.040025667 1973.630 0.00366367 1973.630 0.00366367 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 1.14% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05% 59.77% 3.65% 2.78% Amp Ratio 184.58% 163.99% 140.81% 140.00% 92.37% 73.63% 66.88% 16.79% 13.98% 16.79% 13.98% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 18.99% 1.85% 18.89%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.75 85.60	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% -13.45% -12.45% -9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.20% -0.47% -0.26% -0.20% -0.47% -0.26% -0.20% -0.36% -0.25% -0.20% -0.48% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.06% -0.071% -0.61% -2.39% rsion (Pitch) Pitc -0.03% -0.05% -0.06% -0.071% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 7 2 Sound 21 A NHN 3 4 4 2 1 5 6 6 7 7 4 3 6 6 2 3 6 6 2 3	890.001 0.0003301447 73012.977 0.0003189677 1926.950 0.000304954 744.171 0.00033179 1477.943 0.000228562 1425.163 0.0002258507 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle - Staccato - A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.03054892333 879.345 0.0204671667 2192.320 0.0183622667 2192.320 0.0183622867 2192.320 0.0183622867 2192.320 0.0183622667 2192.320 0.0183622867 787.751 0.0006459727 Aiddle - Staccato - B Frequency Amplitude 1481.543 0.0400252867 1973.630 0.00565110333 2960.760 0.0005531 3967.267 0.005531 3967.267 0.005531 3967.267 0.005531 3967.267 0.00365140333 2960.760 0.00565140333 2960.760 0.00565140333 2960.760 0.00365140333 2960.760 0.00365140333 2960.760 0.003651433 3967.267 0.003651433 393.288 0.0021868033 1570.863 0.003614467 2874.767 0.0030315433 903.288 0.0021868033 1570.863 0.0036522113 3042.957 0.0030315433	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 0.87% Amp Ratio 132,24% 122,56% 120,56% 120,56% 2.78% Amp Ratio 144,58% 163,90% 144,61% 164,88% 163,90% 16,88% 16,79% 13,98% 10,09% 19,14% 8,97%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.43 91.44 91.03 102.48 91.75	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.20% -0.20% -0.24% -0.20% -0.20% -0.17% -0.24% -0.20% -0.17% -0.24% -0.20% -1.13%	1.32% 0.47% -1.50% -2.55% -2.25% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.10% -0.08% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitch -0.3% -0.06% -0.071% -0.03% -0.05% -0.04% -0.00% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.04% -0.04% -0.03% -0.04% -0.04% -0.03% -0.04% -0.04% -0.04% -0.03% -0.04% -0.04% -0.03% -0.04% -0.04% -0.03% -0.04% -0.03% -0.04% -0.04% -0.04% -0.03% -0.04% -0.04% -0.03% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -0.04% -0.05% -	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 2 2 2 2 3 6 11.0 11.0 11.0 11.0 11.0 11.0 12.9 6.0 8.7 10.2 5.5 9.5 9.5 9.5 9.5 9.6 10.2 10.2 10.2 10.2 10.2 10.2 10.2 10.2
Sound 20 A NHN 3 4 1 1 2 5 5 6 6 6 7 7 2 2 Sound 21 A NHN 3 4 2 1 1 5 6 6 7 7 4 4 3 3 6 6 2 3 3 6 6 3 3 6 3	890.001 0.0003301447 3012.977 0.000318967 1472.943 0.000282662 1425.163 0.0002285607 1481.343 0.0002235867 2637.397 0.000216952 2670.893 0.000214727 1841.343 0.0002235867 1314.823 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 154.803 0.0204871863 2192.320 0.018822867 2633.980 0.013822867 2633.980 0.013822867 2637.823 0.008473603 2974.960 0.00868571 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.400252667 1973.630 0.00386511 1481.543 0.0400252667 1973.630 0.00368511033 2468.837 0.020621833 2468.837 0.020621833 2488.837 0.020621833 2488.837 0.020621833 2488.837 0.0036414467 1481.543 0.0400252667 1973.630 0.00366367 1973.630 0.00366367 1973.630 0.00366361 1481.543 0.040025667 1973.630 0.00366367 1973.630 0.00366367 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 1.14% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05% 59.77% 3.65% 2.78% Amp Ratio 184.58% 163.99% 140.81% 140.00% 92.37% 73.63% 66.88% 16.79% 13.98% 16.79% 13.98% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 18.99% 1.85% 18.89%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.75 85.60	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% -13.45% -12.45% -9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.20% -0.47% -0.26% -0.20% -0.47% -0.26% -0.20% -0.36% -0.25% -0.20% -0.48% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.06% -0.071% -0.61% -2.39% rsion (Pitch) Pitc -0.03% -0.05% -0.06% -0.071% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0
Sound 20 A NHN 3 4 4 6 6 6 7 7 2 Sound 21 A NHN 3 4 2 1 5 6 7 7 4 3 6 6 7 7 4 3 6 6 7 4 3 6 6 7 4 3 6 6 7 4 4 3 6 6 7 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	890.001 0.0003301447 3012.977 0.000318967 1472.943 0.000282662 1425.163 0.000282662 1425.163 0.000282662 1425.163 0.0002814727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 1548.83 0.020287333 440.584 0.0232287333 440.584 0.0232287333 440.584 0.0232287333 479.345 0.0204671667 2192.320 0.018822867 2537.823 0.008473603 2974.960 0.018862967 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.400252667 1973.630 0.00386571 1481.543 0.400252667 1973.630 0.0036414467 1973.630 0.0036694 1395.930 0.0036414467 1973.630 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667 3455.580 0.0159663667	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 1.14% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.00% 88.11% 79.05% 59.77% 3.65% 2.78% Amp Ratio 184.58% 163.99% 140.81% 140.00% 92.37% 73.63% 66.88% 16.79% 13.98% 16.79% 13.98% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 16.88% 18.99% 1.85% 18.89%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.75 85.60	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% -13.45% -12.45% -9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.20% -0.47% -0.26% -0.20% -0.47% -0.26% -0.20% -0.36% -0.25% -0.20% -0.48% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitc -0.10% -0.06% -0.071% -0.61% -2.39% rsion (Pitch) Pitc -0.03% -0.05% -0.06% -0.071% -0.61% -2.39%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 2 Sound 21 A NHN 3 4 4 2 1 5 6 6 7 4 3 6 6 2 3 6 6 3 2 4 Sound 22 A	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.00033179 1477.943 0.000282662 1425.163 0.000282662 1425.163 0.000282667 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.034678333 1754.803 0.034678333 1754.803 0.034678333 1754.803 0.036878333 1754.803 0.00086571 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.0400252867 1973.630 0.00365410333 967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531 3967.267 0.0305531	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 0.87% Amp Ratio 132,24% 122,56% 102,06% 88.11% 79.05% 2.78% Amp Ratio 144.58% 163.90% 144.81% 100.00% 16.88% 16.79% 1.85% 1.80% 1.85%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.03 102.48 91.75 85.60 96.31	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.00% -0.17% -0.24% -0.20% -0.17% -0.24% -0.20% -1.36	1.32% 0.47% -1.50% -2.55% -2.25% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitt -0.10% -0.08% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitt -0.10% -0.03% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.117% -0.239% -1.10% -0.44% -1.36%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 2 2 2 2 3 6 11.0 11.0 11.0 11.0 11.0 12.9 6.0 8.7 10.2 5.5 9.5 9.5 9.5 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3
Sound 20 A NHN Sound 21 A NHN Sound 21 A Sound 21 A Sound 22 A	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.00033179 1477.943 0.000228562 1425.163 0.0002258507 1841.343 0.0002225867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0307183333 1754.803 0.0307183333 1754.803 0.0306492333 879.345 0.0204671667 2192.320 0.0183622667 2192.320 0.0183622667 2537.823 0.0008473603 2974.960 0.00086571 787.751 0.0006459727 Aiddle – Staccato – B Frequency Amplitude 1481.543 0.0400252667 1973.630 0.005531 397.267 0.005531 397.267 0.005531 397.267 0.005531 397.267 0.005531 397.267 0.003651433 903.288 0.0021869333 1570.863 0.003651433 903.288 0.0021869233 3042.957 0.003651433 903.288 0.0021869233 3042.957 0.003651483 903.288 0.0021869233 3042.957 0.0036514867 2874.767 0.0030315433 903.288 0.0021869233 3042.957 0.0036514867 2874.767 0.0030315433 903.288 0.0021869233 3042.957 0.0036514867 2874.767 0.0030315433 903.288 0.0021869233 3042.957 0.0036594 1387.900 0.000400913 1147.850 0.000400913	1.49% 1.44% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 0.87% Amp Ratio 132.24% 122.56% 102.00% 88.11% 79.05% 2.78% 2.78% Amp Ratio 144.58% 163.90% 16.88% 163.90% 16.88% 16.79% 1.85% 1.80% 1.80% 1.85%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 92.95 69.02 80.99 96.80 99.93 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.75 85.60 96.31	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29 Interval from Fundamental	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.76% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.00% -0.17% -0.24% -0.20% -0.16% -0.25% -0.20% -0.36% -1.0.60%	1.32% 0.47% -1.50% -2.55% -2.25% 2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitt -0.10% -0.08% -0.04% -0.09% -0.06% -0.17% -0.66% -0.67% -0.05% -0.00%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 2 4.2 2 4.2 2 6 6.1 1.0 11.0 11.0 11.0 12.9 6.0 6.7 10.2 5.5 9.5 7.0 6.5 7.0 6.5 7.0 6.7 10.2 5.5 9.8 10.9 9.8 10.9 9.8 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9
Sound 20 A NHN Sound 21 A 1 2 5 6 6 7 7 2 Sound 21 A NHN 3 4 2 1 5 6 6 7 4 3 3 6 6 2 3 3 6 3 2 4 Sound 22 A NHN Sound 22 A	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000330179 1477.943 0.000282662 1425.163 0.000282662 1425.163 0.000282662 1425.163 0.0002614727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.0204671667 2192.320 0.0183622867 2873.93 0.00084693333 879.345 0.0204671667 2633.980 0.0138822867 2537.823 0.0008473603 2974.960 0.00086571 787.751 0.0006459727 Aiddle – Staccato – B Frequency Individed 1481.543 0.0400252667 1973.630 0.0358210333 2960.760 0.0159663667 1973.630 0.0355410333 2960.760 0.0159663667 1973.630 0.0036594 1395.930 0.003614467 1973.630 0.0036594 1395.930 0.003614467 1973.630 0.0036594 1395.930 0.003614467 1395.930 0.003614467 1395.930 0.003614467 1395.930 0.003614467 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594 1395.930 0.0036594	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 0.87% 1.14% 0.87% 1.14% 0.887% 1.256% 1.000% 88.11% 79.05% 2.78% Amp Ratio 184.58% 163.99% 144.81% 100.00% 92.37% 3.65% 2.78% 16.88% 16.99% 1.65%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 91.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.82 84.82 96.81	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29 Interval from Fundamental 18.99 12.00 23.96	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.25% -0.25% -0.20% -0.20% -0.17% -0.24% -0.20% -0.15% -0.35% -1.33% -8.69% 5.86% 5.85% 10.35%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitt -0.10% -0.08% -0.09% -0.09% -0.06% -0.06% -0.05% -	9.0 0.0 11.0 11.0 2.9 6.0 6.1 7.1 1.0 2.5 5.5 7.0 6.5 7.8 0.3 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6
Sound 20 A NHN Sound 21 A 1 2 5 6 6 6 7 7 2 Sound 21 A NHN 3 4 2 2 5 6 6 7 4 3 3 6 6 2 3 3 2 4 NHN 3 3 4 4 5 6 6 7 7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000330179 1477.943 0.000282862 1425.163 0.000282862 1425.163 0.0002814727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.03264692333 879.345 0.0204671667 2192.320 0.0183622867 2192.320 0.0183622867 22192.320 0.0183622867 22192.320 0.0183622867 2537.823 0.0008473603 2974.960 0.000686571 787.751 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.0400252667 1973.630 0.00586571 397.267 0.0003531 1395.930 0.0036144467 1392.213 0.0036594 1390.213 0.0036594	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.0% 88.11% 79.05% 2.78% Amp Ratio 184.58% 163.99% 47.60% 16.88% 10.09% 1.85% 1.80% 1.65%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 91.03 102.48 91.75 85.60 96.31 Pitch (MIDI #) 91.82 84.82 96.81 72.83 100.67	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29 Interval from Fundamental 18.99 12.00 23.98 0.00 27.85	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.00% -0.17% -0.24% -0.20% -0.15% -10.60% Diversion (Hz) -0.15% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.08% -0.09% -0.09% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitch -0.3% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.1 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 7 2 Sound 21 A NHN 3 4 4 2 2 3 6 6 7 4 3 3 6 6 3 3 2 2 4 Sound 22 A Sound 22 A	890.001 0.0003301447 3012.977 0.000318967 1472.943 0.000282662 1425.163 0.000282662 1425.163 0.000282662 1425.163 0.0002855007 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.030718333 1754.803 0.030783333 140.584 0.0232287333 440.584 0.0232287333 440.584 0.0232287333 479.345 0.0008473603 2974.960 0.00368657 787.751 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.0400252667 1973.630 0.00368657 1973.630 0.00368657 1973.630 0.00368657 1973.630 0.0036414467 2874.767 0.0036331 1987.267 0.0036331 1989.930 0.0036814467 2874.767 0.0036331 1395.930 0.0036814467 2874.767 0.0036331 1395.930 0.0036814467 2874.767 0.0036311 1395.930 0.0036814467 2874.767 0.0036315433 390.228 0.002186903 1570.863 0.0019686367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3455.580 0.00366367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.0036367 3467.003637 3467.	1.49% 1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.01% 0.98% 1.14% 1.01% 0.98% 1.14% 1.00%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 87.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 90.02 94.98 82.99 71.03 98.86 102.00 104.68 94.24 88.99 101.49 81.45 91.03 102.48 91.75 85.60 96.31 Pitch (MIDI #) 91.82 84.82 96.81 72.83 100.67 103.82	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29 Interval from Fundamental 18.99 12.00 23.98 0.00 27.85 30.99	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% 0.00% -0.21% -0.48% -0.36% -4.00% -3.54% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.17% -0.26% -0.20% -0.17% -0.24% -0.29% -1.10% -0.15% -0.15% -0.02% -0.17% -0.24% -0.29% -0.17% -0.24% -0.29% -0.17% -0.24% -0.29% -0.17% -0.24% -0.29% -0.17% -0.24% -0.29% -0.17% -0.24% -0.29% -0.17% -0.29% -0.15% -0.02% -0.15% -0.02% -0.15% -0.15% -0.15%	1.32% 0.47% -1.50% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% -1.01% -0.10% -0.08% 0.00% -0.04% -0.09% -0.06% -0.71% -0.61% -2.39% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.03% -0.05% -0.04% -0.33% -1.17% -0.33% -1.17% -1.90% 1.10% -1.36% -1.17% -1.90% -1.17% -1.90% -1.17% -1.90% -1.17% -1.90% -1.17% -1.90% -1.17% -1.90% -1.10% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.00%	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.6 6.1 7.1 6.6 6.0 6.1 1.0 11.0 2.9 6.0 11.0 11.0 2.9 6.0 6.5 7.8 6.0 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.8 6.5 7.7 8.1 6.
Sound 20 A NHN 3 4 4 1 2 5 6 6 7 7 2 Sound 21 A NHN 3 4 4 2 1 5 6 6 7 7 4 4 3 6 6 3 3 2 4 Sound 22 A Sound 22 A Sound 22 A NHN 3 4 4 1 5 6 6 6 7 7 4 4 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	890.001 0.0003301447 3012.977 0.0003189677 1926.950 0.000304954 744.171 0.000330179 1477.943 0.000282862 1425.163 0.000282862 1425.163 0.0002814727 1841.343 0.0002235867 2637.397 0.000216952 2670.893 0.000192788 Aiddle – Staccato – A Frequency Amplitude 1314.823 0.0307183333 1754.803 0.03264692333 879.345 0.0204671667 2192.320 0.0183622867 2192.320 0.0183622867 22192.320 0.0183622867 22192.320 0.0183622867 2537.823 0.0008473603 2974.960 0.000686571 787.751 0.0006459727 Aiddle – Staccato – B Frequency 1481.543 0.0400252667 1973.630 0.00586571 397.267 0.0003531 1395.930 0.0036144467 1392.213 0.0036594 1390.213 0.0036594	1.49% 1.49% 1.38% 1.37% 1.28% 1.17% 1.14% 1.01% 0.98% 0.87% Amp Ratio 132.24% 122.56% 100.0% 88.11% 79.05% 2.78% Amp Ratio 184.58% 163.99% 47.60% 16.88% 10.09% 1.85% 1.80% 1.65%	81.20 102.31 94.57 78.10 89.98 89.35 84.86 93.78 100.00 100.22 Pitch (MIDI #) 92.95 69.02 80.99 96.80 99.98 99.34 102.09 79.08 Pitch (MIDI #) 91.03 102.48 91.75 85.60 96.31 Pitch (MIDI #) 91.82 84.82 96.81 72.83 100.67	13.05 34.17 26.43 9.96 21.83 21.20 16.72 25.64 31.86 32.08 Interval from Fundamental 18.93 23.93 0.00 11.96 27.78 30.96 30.31 33.06 10.06 Interval from Fundamental 18.99 23.96 11.97 0.00 27.83 30.98 33.65 23.21 17.96 30.47 10.43 20.01 31.45 20.72 14.57 25.29 Interval from Fundamental 18.99 12.00 23.98 0.00 27.85	INHARMONIC	6.28% 2.80% -7.96% -11.14% -11.176% 13.45% -12.45% 9.94% 4.98% 6.31% Diversion (Hz) -0.52% -0.43% -0.00% -0.21% -0.48% -10.60% Diversion (Hz) -0.16% -0.25% -0.20% -0.00% -0.17% -0.24% -0.20% -0.15% -10.60% Diversion (Hz) -0.15% -10.60%	1.32% 0.47% -1.50% -2.55% -2.55% -2.55% -2.51% -2.64% 1.78% 0.85% 1.07% rsion (Pitch) Pitch -0.08% -0.09% -0.09% -0.09% -0.06% -0.71% -0.61% -2.39% rsion (Pitch) Pitch -0.3% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -	9.2 6.3 10.6 6.1 6.0 5.3 0.9 9.8 4.0 4.2 6.1 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0

				A	ppendix 4			
5 6 3 5 2 2 4 4 2 3 4 5 5	2644.463 0.0013884133 3191.363 0.0013130033 1737.890 0.00127204 2838.437 0.0010725367 1187.547 0.0010439863 1000.528 0.000590233 2289.673 0.0009599237 1291.893 0.0005542043 1443.793 0.000471017 2390.457 0.000451341 2985.387 0.0002845913	6.54% 6.19% 5.99% 5.05% 4.92% 4.48% 4.28% 2.61% 2.22% 2.13% 1.34%	100.05 103.30 92.78 101.27 86.19 83.22 97.55 87.65 89.57 98.30 102.15	27.22 30.48 19.95 28.45 13.36 10.39 24.73 14.82 16.74 25.47 29.32	INHARMONIC	-3.64% -3.09% 5.54% 3.43% 8.18% -8.86% 4.29% 17.69% -12.32% 8.88% 8.78%	-0.64% -0.52% 1.02% 0.58% 1.60% -1.89% 0.75% 3.32% -2.48% 1.52% 1.45%	4.0 7.3 8.8 5.3 2.2 11.2 1.6 3.6 5.6 2.3 6.1
Sound 22	Middle Characte DH							
Sound 23 NHN 2 3 4 1 5 5 3 4 3 5 4 5 4 4 4 4 4 4 4 4 4 4 4 4	1251.160 0.0733013 1882.287 0.0487667667 2507.803 0.0367671333 625.572 0.0340100333 3133.407 0.0316778333 1971.680 0.00248247	Amp Ratio 215.53% 143.39% 108.11% 100.00% 93.14% 7.30% 7.14% 6.17% 6.04% 4.86% 3.94% 3.27% 1.51% 1.34% 0.99%	Pitch (MIDI #) 87.09 94.16 99.13 75.09 102.99 94.97 98.46 93.27 102.47 88.36 85.81 99.76 103.50 100.51 95.96 104.09	Interval from Fundamental 12.00 19.07 24.04 0.00 27.89 19.87 23.37 18.17 27.38 13.27 10.72 24.67 28.41 25.42 20.87 29.00 25.13	Notes louder than fundamental louder than fundamental louder than fundamental sample is short – see sound 19 all harmonic partials slightly sharp INHARMONIC	Diversion (Hz) Divers 0.00% 0.30% 0.22% 0.00% 0.18% 5.06% -3.57% 4.76% -2.74% 7.61% -7.14% 3.92% 3.20% 8.52% 11.26% 6.80% 6.75%	ion (Pitch) Pit 0.00% 0.05% 0.04% 0.04% 0.03% 0.91% -0.64% -0.90% -0.47% 1.46% -1.47% 0.67% 0.53% 1.43% 1.96% 1.11% 1.14%	ch Class 3.1 10.2 3.1 7.0 11.0 2.5 9.3 6.5 4.4 1.8 3.8 7.5 12.0 8.1
	Middle – Staccato – high E							
NHN 3 2 2 1 1 4 5 6 6 6 5 5 2 2 4 4 3 3 5 5 4	Frequency Amplitude 1971-013 0.0803073667 1314.207 0.0775853 657.079 0.0486859 2628.120 0.045530933 3285.053 0.0389230667 3942.003 0.0269593 3850.470 0.0022630667 3193.860 0.0022090233 1217.480 0.00220485 2536.910 0.00220133867 1874.650 0.0017839867 2729.090 0.0013953667 2729.090 0.0013953667 2729.090 0.0013953667 2729.090 0.0013953667 3479.543 0.000641584 3132.793 0.000481584 2474.930 0.000481584 2474.930 0.000481584 2474.930 0.000481584 2474.930 0.000481584	Amp Ratio 164.95% 159.36% 100.00% 93.52% 79.95% 4.65% 4.53% 4.15% 3.98% 3.66% 3.20% 2.87% 2.82% 1.26% 0.87%	Pitch (MIDI #) 94.96 87.94 75.94 99.94 103.80 106.96 106.55 103.32 86.62 99.33 104.30 94.09 89.15 100.59 95.78 104.80 102.98 98.90	Interval from Fundamental 19.02 12.00 0.00 24.00 27.86 31.02 30.61 27.37 10.68 23.39 28.36 18.15 13.21 24.65 19.84 28.86 27.04 22.96	Notes louder than fundamental louder than fundamental sample is short—see sound 19 very little diversion across harmonic partials, INHARMONIC	Diversion (Hz) Divers -0.01% -0.00% -0.00% -0.01% -0.01% -0.01% -0.01% -2.33% -2.79% -7.36% -3.48% -2.89% -4.90% -7.24% -3.83% -4.82% -5.91% -4.64% -5.84%	ion (Pitch) 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.047% -0.47% -0.92% 1.38% 0.65% 0.86% 0.96% -0.79% -1.04%	11.0 3.9 3.9 3.9 7.8 11.0 10.6 7.3 2.6 3.3 8.3 10.1 5.2 4.6 11.8 8.8 7.0
NHN 1			Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers		
NHN 1 2 3 4 6 5 7		Amp Ratio 100.00% 76.32% 21.76% 4.15% 3.23% 2.63% 0.92%	Pitch (MIDI #) 77.36 89.31 96.35 101.32 108.34 105.19 111.01	Interval from Fundamental 0.00 11.96 18.99 23.97 30.98 27.84 33.66	Notes note that all harmonic partials are slighly flat	Diversion (Hz) Divers 0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.15%	ion (Pitch) 0.00% -0.05% -0.03% -0.03% -0.03% -0.02% -0.03%	5.4 5.3 0.3 5.3 0.3 9.2 3.0
NHN 1 2 3 4 6 5 7	Frequency Amplitude 712.990 0.0245390333 1422.380 0.0187272 2135.390 0.00533662 2846.447 0.001017799 4268.980 0.0007927943 3559.687 0.0006449083 4981.540	100.00% 76.32% 21.76% 4.15% 3.23% 2.63%	77.36 89.31 96.35 101.32 108.34 105.19	0.00 11.96 18.99 23.97 30.98 27.84	note that all harmonic	0.00% -0.25% -0.17% -0.19% -0.21% -0.15%	0.00% -0.05% -0.03% -0.03% -0.03% -0.02%	5.4 5.3 0.3 5.3 0.3 9.2
NHN 1 2 3 4 6 5	Frequency Amplitude 712 990 0.0245390333 1422 380 0.0187272 2135.390 0.00533862 2846 447 0.001017799 4268.980 0.00007927943 3559.687 0.0006449083 4981.540 0.0002269433	100.00% 76.32% 21.76% 4.15% 3.23% 2.63% 0.92%	77.36 89.31 96.35 101.32 108.34 105.19	0.00 11.96 18.99 23.97 30.98 27.84	note that all harmonic	0.00% -0.25% -0.17% -0.19% -0.21% -0.15%	0.00% -0.05% -0.03% -0.03% -0.03% -0.02% -0.03%	5.4 5.3 0.3 5.3 0.3 9.2 3.0
NHN 1 1 2 3 3 4 6 6 5 7 7 Sound 26 NHN 2 3 1 1 4 5 6 6 4 4 2 2	Frequency 712,990 0.0245390333 1422,380 0.0187272 2135,390 0.002453962 2846,447 0.001017799 4268,980 0.0007927943 3559,687 0.0006449083 4981,540 0.0002269433 Top = f = low Frequency 1420,907 0.111927 2131,373 0.082864 710,451 0.0646205 2843,817 0.0646205 2843,817 0.0587623 3550,450 0.0416005667 4260,893 0.0246771 2573,457 0.000580733	100.00% 76.32% 21.76% 4.15% 3.23% 2.63% 0.92% Amp Ratio 173.21% 128.24% 100.00% 90.93% 64.38% 38.19% 0.90%	77.36 89.31 96.35 101.32 108.34 105.19 111.01 Pitch (MIDI #) 89.29 96.31 77.29 101.31 105.15 108.31 99.58	0.00 11.96 18.99 23.97 30.98 27.84 33.66 Interval from Fundamental 12.00 19.02 0.00 24.01 27.85 31.01 22.28	note that all harmonic partials are slighly flat Notes louder than fundamental louder than fundamental very little diversion across harmonic partials.	0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.19% Diversion (Hz) 0.00% 0.00% 0.00% 0.00% -0.05% -0.05% -0.04%	0.00% -0.05% -0.03% -0.03% -0.02% -0.03% -0.03% -0.00% -0.00% -0.00% -0.00% -0.01% -0.01% -0.01%	5.4 5.3 0.3 5.3 0.3 9.2 3.0 ch Class 5.3 0.3 5.3 9.1 0.3
NHN 1 1 2 3 3 4 6 6 5 7 7 Sound 26 NHN 2 3 1 1 4 5 6 6 4 4 2 2	Frequency 712,990 0.0245390333 1422,380 0.0187272 2135,390 0.002453962 2846,447 0.001017799 4268,980 0.0007927943 3559,687 0.0006449083 4981,540 0.0002269433 Top = f = low Frequency 1420,907 0.111927 2131,373 0.082864 710,451 0.0548205 2843,817 0.0648205 2843,817 0.0587623 3550,450 0.0416005667 4260,893 0.0246771 2573,457 0.000523475	100.00% 76.32% 21.76% 4.15% 3.23% 2.63% 0.92% Amp Ratio 173.21% 128.24% 100.00% 90.93% 64.38% 38.19% 0.90%	77.36 89.31 96.35 101.32 108.34 105.19 111.01 Pitch (MIDI #) 89.29 96.31 77.29 101.31 105.15 108.31 99.58	0.00 11.96 18.99 23.97 30.98 27.84 33.66 Interval from Fundamental 12.00 19.02 0.00 24.01 27.85 31.01 22.28	note that all harmonic partials are slighly flat Notes louder than fundamental louder than fundamental very little diversion across harmonic partials.	0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.19% Diversion (Hz) 0.00% 0.00% 0.00% 0.00% -0.05% -0.05% -0.04%	0.00% -0.05% -0.03% -0.03% -0.03% -0.02% -0.03% ion (Pitch) 0.00% 0.00% 0.00% 0.00% 0.01% -0.01% -0.01% -1.70% 4.29%	5.4 5.3 0.3 9.2 3.0 ch Class 5.3 0.3 5.3 5.3 9.1 0.3 9.1
NHN 1 1 2 3 3 4 6 6 5 7 7 Sound 26 NHN 2 3 3 1 4 4 5 6 6 4 2 2 2 2 2 3 3 3 3 3 3 3 Sound 28 Sound 28	Frequency 712,990 0.0245390333 1422,380 0.0187272 2135,390 0.00453862 2846,447 0.00107779 4268,980 0.00052269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,367 0.000526943 4981,367 0.000523475 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.000523475 4260,367 0.000523475 4260,367 0.000523475 4260,367 0.00050733 1773,157 0.000523475 4261,367 0.000523475 4361,367 0.00059747 943,052 0.00059747 943,052 0.000597687 1787,087 0.0013097047 943,052 0.00059747 1955,210 0.000514677 1864,527 0.000597487 1955,210 0.000551227 1358,843 0.000552220 1266,797 0.000557237 2203,640 0.000472762 2166,797 0.0003901703 476 0.0003001703 476 0.0003001703	100.00% 76.32% 4.15% 3.23% 2.63% 0.92% Amp Ratio 173.21% 128.24% 100.00% 90.93% 64.38% 0.81% 107.66% 100.00% 47.85% 100.00% 47.85% 2.44% 2.13% 2.06% 2.24% 1.33% 2.06% 1.33% 1.45% 1.37% 1.32%	77.36 89.31 96.35 101.32 108.34 105.19 111.01 Pitch (MIDI #) 89.29 96.31 77.29 101.31 105.15 108.31 99.58 93.13 Pitch (MIDI #) 92.30 80.28 99.31 93.26 82.20 99.96 94.82 99.31 93.26 82.20 99.96 94.82 99.31 93.68 88.89 96.60 100.23 97.67	0.00 11.96 18.99 23.97 30.98 27.84 33.66 Interval from Fundamental 12.00 19.02 0.00 24.01 27.85 31.01 22.28 15.83 Interval from Fundamental 12.02 0.00 19.03 12.98 1.92 19.68 14.54 13.72 14.20 8.24 16.61 16.32 19.94 17.39	Notes Iouder than fundamental louder than fundamental louder than fundamental very little diversion across harmonic partials. INHARMONIC	0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.19% Diversion (Hz) Divers 0.00% 0.00% 0.00% -0.05% -0.05% -0.04% -9.44% 24.79% Diversion (Hz) Divers 0.11% 0.00% 0.06% 5.84% 11.70% 3.88% 15.79% 10.42% 13.55% -19.53% -13.00% -14.45% 5.48% -9.00%	0.00% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.09% -0.01% -0.01% -0.01% -0.01% -0.01% -1.70% -4.29% ion (Pitch) Pit 0.02% 0.00% 0.01% -1.66% 2.39% -2.43% -2.75% -4.08% -2.43% -2.72% 0.93% -1.64%	ch Class 5.3 0.3 5.3 9.2 3.0 ch Class 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3
NHN 1 1 2 3 3 4 4 6 5 7 7 Sound 26 NHN 2 3 1 4 4 4 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3	Frequency 712,990 0.0245390333 1422,380 0.0187272 2135,390 0.00453862 2846,447 0.00107779 4268,980 0.00052269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,540 0.0002269433 4981,367 0.000526943 4981,367 0.000523475 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.0416005667 4260,893 0.000523475 4260,367 0.000523475 4260,367 0.000523475 4260,367 0.00050733 1773,157 0.000523475 4261,367 0.000523475 4361,367 0.00059747 943,052 0.00059747 943,052 0.000597687 1787,087 0.0013097047 943,052 0.00059747 1955,210 0.000514677 1864,527 0.000597487 1955,210 0.000551227 1358,843 0.000552220 1266,797 0.000557237 2203,640 0.000472762 2166,797 0.0003901703 476 0.0003001703 476 0.0003001703	100.00% 76.32% 4.15% 3.23% 2.63% 0.92% Amp Ratio 173.21% 128.24% 100.00% 90.93% 64.38% 0.81% 107.66% 100.00% 47.85% 100.00% 47.85% 2.44% 2.13% 2.06% 2.24% 1.33% 2.06% 1.33% 1.45% 1.37% 1.32%	77.36 89.31 96.35 101.32 108.34 105.19 111.01 Pitch (MIDI #) 89.29 96.31 77.29 101.31 105.15 108.31 99.58 93.13	0.00 11.96 18.99 23.97 30.98 27.84 33.66 Interval from Fundamental 12.00 19.02 0.00 24.01 27.85 31.01 22.28 15.83 Interval from Fundamental 12.02 0.00 19.03 12.98 1.92 19.68 14.54 13.72 14.20 8.24 16.61 16.32 19.94	Notes Iouder than fundamental louder than fundamental louder than fundamental very little diversion across harmonic partials. INHARMONIC INHAR	0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.19% Diversion (Hz) Divers 0.00% 0.00% 0.00% -0.05% -0.05% -0.04% -9.44% 24.79% Diversion (Hz) Divers 0.11% 0.00% 0.66% 5.84% 11.70% 3.88% 15.79% 10.42% 13.55% -19.53% -13.00% -14.45% 5.48%	0.00% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.09% -0.01% -0.01% -0.01% -0.01% -0.01% -1.70% -4.29% ion (Pitch) Pit 0.02% 0.00% 0.01% -1.66% 2.38% -4.08% -2.43% -2.72% 0.93% -1.64%	ch Class 5.3 0.3 5.3 9.2 3.0 ch Class 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3
NHN	Frequency 712,990 0.0245390333 1422,380 0.00533862 0.0187,272 2135,390 0.00533862 0.00533862 0.00533862 0.00533862 0.00533862 0.00533862 0.005289433 15059.687 0.000649083 1509.687 0.0002269433 1509.687 0.0002269433 1509.687 0.0002269433 1509.687 0.00026943 1509.687 0.000226943 1509.687 0.000226943 1509.687 0.000226943 1509.687 0.000226943 1509.687 0.000226943 1509.687 0.00053033 0.046701 0.00052347 1509.687 0.00053033 0.046701 0.00052347 1509.687 0.00053033 0.046701 0.00053033 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0005303 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.0003703 0.00037753 0.00033713 0.0003375 0.00033713 0.0	100.00% 76.32% 4.15% 3.23% 2.63% 0.92% Amp Ratio 173.21% 128.24% 100.00% 64.38% 64.38% 10.90% 0.81% Amp Ratio 107.66% 100.00% 4.57% 2.54% 2.00% 2.13% 1.32% 1.32% 1.05% Amp Ratio 1.32% 1.32% 1.05%	77.36 89.31 96.35 101.32 108.34 105.19 111.01 Pitch (MIDI #) 89.29 96.31 77.29 101.31 105.15 108.31 99.58 93.13 Pitch (MIDI #) 92.30 80.28 99.31 93.26 80.28 99.31 93.26 94.82 99.96 94.82 99.96 94.82 96.80 90.23 97.67	0.00 11.96 18.99 23.97 30.98 27.84 33.66 Interval from Fundamental 12.00 19.02 0.00 24.01 27.85 31.01 22.28 15.83 Interval from Fundamental 12.02 0.00 19.03 12.98 1.92 19.68 14.54 13.72 14.20 8.24 16.61 16.32 19.94 17.39 Interval from Fundamental 12.02 19.03 12.98 14.54 13.72 14.20 15.30 15.30 15.30 Interval from Fundamental 12.02 19.03 15.30 Interval from Fundamental	Notes Iouder than fundamental louder than fundamental	0.00% -0.25% -0.17% -0.19% -0.21% -0.15% -0.19% Diversion (Hz) 13.55% -19.53% -19.53% -19.00% Diversion (Hz) Diversion (Hz)	0.00% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.02% -0.03% -0.01% -0.01% -0.01% -0.01% -1.70% -1.29% -1.66% -2.38% -1.64% -2.72% -0.93% -1.64% -1.	ch Class 6.3 6.3 9.2 3.0 ch Class 8.3 9.1 0.3 9.1 ch Class 8.3 9.1 0.3 10.0 10.0 10.5 0.9 0.6 4.2 1.7 ch Class 8.1 8.1 8.1 8.1 7.3 11.5 11.9 1.1

		A	ppendix 4			
3 2118.250 0.0514589333 4 2827.423 0.0325514667 2 1557.333 0.0014734867 2 1496.723 0.0008876473 4 2975.397 0.0007761573 2 1640.410 0.000729974 3 2350.083 0.0006277741 4 2604.593 0.000618627 3 2027.780 0.0005833653 3 1903.737 0.0005749507 3 2473.647 0.0005706233 4 2555.917 0.000583053 1 847.720 0.000583053 1 847.720 0.0004841663 3 1836.973 0.0004534427 947.540 0.000389512 5 3283.247 0.0003771117	87.32% 96.21 55.24% 101.21 2.50% 90.88 1.51% 90.19 1.32% 102.09 1.24% 91.78 1.07% 98.01 1.05% 99.79 0.99% 95.45 0.98% 94.36 0.97% 98.89 0.94% 99.46 0.85% 92.23 0.82% 80.35 0.77% 93.74 0.66% 82.28 0.66% 82.28 0.64% 103.79	19.00 24.00 13.67 12.99 24.88 14.57 20.80 22.58 18.24 17.15 21.68 22.25 15.02 3.14 16.53 5.07 26.59	INHARMONIC	-0.12% -0.01% 10.14% 5.86% 5.22% 16.02% 10.81% -7.89% -4.39% -10.24% 16.63% -9.62% 19.99% 13.39% 34.03% -7.12%	-0.02% 0.00% 1.88% 1.10% 0.87% 2.88% 1.85% -1.41% -0.81% -1.94% 2.77% -1.73% 3.39% 4.07% -2.59% 6.57% -1.22%	0.2 5.2 6.9 6.2 6.1 7.8 2.0 3.8 11.5 10.4 2.9 3.5 8.2 8.4 9.7 10.3 7.8
Cound 20 = 0 = 0						
Sound 30 Top — Staccato — F# NHN Frequency Amplitude 1 1499.567 0.07112706377 1 749.717 0.0563772 3 2249.253 0.037198867 4 2999.307 0.0202324 2 1420.300 0.0021922 3 2169.910 0.0018091433 4 2915.273 0.01366733 2 1289.897 0.00056552 2 1724.220 0.000557871 3 2473.620 0.00051831 3 2473.620 0.0004434937	Amp Ratio Pitch (MIDI #) 126.16% 90.23 100.00% 78.23 65.66% 97.25 35.89% 102.23 3.58% 89.29 3.21% 96.62 2.42% 101.74 1.00% 87.62 0.99% 92.64 0.91% 94.89 0.79% 98.89	Interval from Fundamental 12.00 0.00 19.02 24.00 11.06 18.40 23.51 9.39 14.42 16.66 20.67	Notes louder than fundamental INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.01% 0.00% 0.00% 0.00% 0.00% -5.28% -3.52% -2.79% -13.97% 14.99% -12.74% 9.98%	sion (Pitch) Pitch C 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.064% 0.64% 0.64% 0.2.89% 2.68% 0.2.43% 1.69%	6.2 6.2 1.2 6.2 5.3 0.6 5.7 3.6 8.6 10.9 2.9
Sound 31 Top — Staccato — G NHN Frequency 1 Amplitude 2 1583.433 0.0715210333 1 795.042 0.0346558333 2 1660.807 0.0018067133 3 2454.017 0.0011074233 2 1766.770 0.000773194 2 1851.100 0.0006916817 4 2994.263 0.004643843 4 2900.853 0.0003286873	Amp Ratio 206.38% 91.17 100.00% 79.24 98.77% 98.18 5.21% 92.00 3.20% 98.75 2.23% 93.07 2.00% 93.87 1.34% 102.20 0.95% 101.65	Interval from Fundamental 11.93 0.00 18.94 12.75 19.51 13.82 14.63 22.96 22.41	Notes louder than fundamental INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	Diversion (Hz) Diversion (Hz) -0.42% -0.00% -0.48% -4.45% -2.89% -11.11% -16.42% -5.85% -8.78%	sion (Pitch) Pitch C -0.08% -0.00% -0.08% -0.08% 0.83% 0.50% 2.00% 2.88% -1.01% -1.54%	7.2 7.2 2.2 8.0 2.8 9.1 9.9 6.2 5.7
Sound 32 Top - Staccato - G#						
NHN Frequency Amplitude 2 1670.027 0.721869333 1 837.911 0.0407199 3 2507.980 0.0330219 4 3343.840 0.0248704 2 1592.517 0.00574041 3 2428.547 0.040237867 4 3262.200 0.0026481567 2 1750.670 0.0025204067 3 2584.360 0.0021778667 4 3420.590 0.001565367 1 916.010 0.0011700867 3 2144.340 0.0005180603 1 1205.737 0.00034844 3 2239.640 0.000358168 3 2875.383 0.000334814 4 3549.103 0.003329367 2 1996.503 0.0003329367 2 1996.503 0.0003302303 3 2336.167 0.0003272623 4 3078.837 0.0003167773	Amp Ratio Pitch (MIDI #) 177.289 92.09 100.00% 80.15 81.10% 99.13 61.08% 104.11 14.10% 91.27 9.88% 98.57 6.50% 103.68 6.19% 92.91 5.35% 99.65 3.70% 104.50 2.87% 81.69 1.27% 96.42 0.90% 86.45 0.86% 97.17 0.86% 101.50 0.82% 83.81 0.82% 105.14 0.81% 95.18 0.80% 97.90 0.78% 102.68	Interval from Fundamental 11.94 0.00 18.98 23.96 11.12 18.42 23.53 12.76 19.50 24.35 1.54 16.27 6.30 17.02 21.35 3.66 24.99 15.03 17.75 22.53	Notes louder than fundamental sample is short – see sound 19 INHARMONIC	Diversion (Hz) Diversion (Hz) Diversion (Hz) -0.35% -0.00% -0.23% -0.23% -0.23% -0.23% -0.23% -0.25%	-0.07% -0.00% -0.04% -0.04% -0.96% -0.852% -0.45% -0.82% -0.48% -0.34% 1.92% -2.77% -7.86% -2.02% -2.02% -2.35% -4.56% -0.95% -3.29% -1.28% -1.41%	8.1 8.2 3.1 8.1 7.3 2.6 7.7 8.9 3.7 8.5 9.7 0.4 2.5 1.2 5.5 11.8 9.1 11.2 1.9 6.7
7 1137.093 0.00359297 6 975.022 0.00243886 10 1622.797 0.0020772933 9 1460.913 0.00201566 8 1299.013 0.0188937 2 323.897 0.00170999 4 647.599 0.0165516 1 161.968 0.00152909 5 811.339 0.0015116233 3 485.807 0.0014357233 11 7784.670 0.00130546 12 1946.573 0.001812623 13 2110.347 0.0007850097 14 2272.417 0.000298673 15 2433.620 0.0002607167 16 2597.787 0.00025559 12 1866.020 0.0001236399 10 1539.937 0.00011936881 11 1712.713 0.000172188	Amp Ratio 234.97% 85.44 159.50% 82.78 136.85% 91.59 131.82% 89.78 123.565% 87.74 111.83% 63.70 108.24% 75.69 100.00% 51.70 98.86% 97.59 93.24 77.25% 94.74 51.34% 96.14 19.61% 97.42 17.05% 98.61 16.74% 99.74 8.09% 94.01 7.84% 99.69 7.67% 92.53	Interval from Fundamental 33.74 31.08 39.90 38.08 36.04 12.00 23.99 0.00 27.90 19.02 41.54 43.05 44.44 45.73 46.91 48.04 42.31 38.99 40.83	Notes louder than fundamental louder than fundament	Diversion (Hz) Diversion (Hz) 0.29% 0.33% 0.19% 0.22% 0.25% -0.01% -0.04% 0.00% 0.18% -0.02% 0.17% 0.15% 0.23% 0.21% 0.17% 0.29% 0.21% 0.21% 0.21% 0.21% 0.23% 0.21% 0.21% 0.23% 0.21% 0.23% 0.21% 0.23% 0.21% 0.23% 0.23% 0.23% 0.21% 0.23% 0.23% 0.21% 0.23% 0.23% 0.21% 0.23% 0.2	0.06% 0.07% 0.04% 0.04% 0.05% 0.00% 0.01% 0.00% 0.03% 0.03% 0.04% 0.03% 0.04% 0.03% 0.04% 0.03% 0.04% 0.03%	1.4 10.8 7.6 5.8 3.7 3.7 3.7 7.6 10.7 9.2 10.7 0.1 1.4 2.6 3.7 10.0 6.7 8.5
17 2743.103 0.0001152953 18 2921.210 8.779077E-005	7.54% 100.68 5.74% 101.77	48.98 50.07	INHARMONIC	-0.38% 0.20%	-0.06% 0.03%	4.7 5.8
18 2975.660 5.499447E-005	3.60% 102.09	50.39	INHARMONIC	2.07%	0.35%	6.1
Sound 34 Pedal Tone – f NHN Frequency Amplitude	Amp Ratio Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	sion (Pitch) Ditch C	266
10 1633.153 0.0144372333 7 1144.100 0.0136719 8 1308.263 0.0136474333 9 1470.800 0.0132459333 13 2124.170 0.0113307 11 1797.400 0.0107288733 12 1959.663 0.0099847633 6 979.801 0.009884762 14 2286.557 0.00839022 4 651.448 0.0079962033 15 2448.780 0.0073671 5 815.681 0.00732785 3 499.031 0.00620347 2 326.675 0.0060714067 1 162.446 0.0002592377 1065.640 0.0005592377	40.17% 91.71 416.84% 45.54 416.09% 87.86 403.85% 89.89 345.46% 96.26 327.11% 93.36 304.42% 94.86 272.21% 82.86 255.81% 97.53 243.79% 75.79 224.61% 98.72 223.42% 79.69 189.13% 70.83 185.11% 63.84 100.00% 51.75 17.05% 84.31	39.96 33.79 36.12 38.14 44.51 41.61 43.11 31.11 45.78 24.04 46.97 27.94 19.08 12.09 0.00 32.56	ALL HARMONIC PARTIALS LOUDER THAN FUNDAMENTAL. note that all harmonic partials are quite sharp	0.54% 0.61% 0.67% 0.60% 0.59% 0.59% 0.53% 0.53% 0.54% 0.26% 0.50% 0.43% 0.35% 0.55% 0.00%	0.10% 0.12% 0.13% 0.13% 0.11% 0.11% 0.11% 0.10% 0.06% 0.09% 0.09% 0.09% 0.15% 0.00% -1.32%	7.7 1.5 3.9 5.9 0.3 9.4 10.9 1.5 3.8 2.7 7.7 10.8 3.8 3.7 0.3

8					AL	pendix 4			
0	1220.303	0.000875718	26.70%	86.66	34.91	INHARMONIC	-6.10%	-1.24%	2.7
Sound 35	Double Pedal 1	Tone R							
NHN	Frequency		Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
18		0.0034336133	1029.24%	85.14	49.71	ALL HARMONIC PARTIALS	-1.90%	-0.39%	1.1
20		0.0033335	999.23%	86.92	51.48	LOUDER THAN FUNDAMENTAL.	-2.17%	-0.43%	2.9
6		0.0033004733	989.33%	66.13	30.69	0::	-1.89%	-0.50%	6.1
16 8		0.0031481033 0.0028652	943.66% 858.86%	83.06 71.06	47.62 35.63	Significant amount of diversion in all harmonic partials	-2.17% -2.14%	-0.45% -0.52%	11.1 11.1
14		0.00286183	857.85%	80.77	45.33	possibly caused by	-2.04%	-0.44%	8.8
10	618.548	0.0025869633	775.46%	74.90	39.46	unsteady fundamental	-2.31%	-0.54%	2.9
4		0.0025118333	752.94%	59.07	23.63	in original sample	-2.12%	-0.62%	11.1
23 12		0.0025062 0.00250515	751.25% 750.93%	90.08 78.12	54.64 42.68		2.08%	0.40% -0.43%	6.1 6.1
22		0.00230313	740.97%	88.61	53.17		-1.97%	-0.43%	4.6
24		0.0024583267	736.90%	90.80	55.37		2.02%	0.38%	6.8
21		0.0022443833	672.77%	87.78	52.35		-2.07%	-0.41%	3.8
22 25		0.00212564 0.0021154967	637.17%	89.32	53.88		2.17% 1.94%	0.42% 0.37%	5.3
19		0.0021154967	634.13% 624.59%	91.50 86.04	56.06 50.61		-2.11%	-0.43%	7.5 2.0
26		0.0018731433	561.48%	92.12	56.68		1.61%	0.30%	8.1
17	1054.373	0.00163885	491.25%	84.13	48.69		-2.04%	-0.42%	0.1
15		0.0016312	488.96%	81.95	46.51		-2.12%	-0.45%	9.9
27 28		0.0015608367 0.0013833133	467.87% 414.66%	92.76 93.37	57.33 57.93		1.56% 1.43%	0.29% 0.26%	8.8 9.4
30		0.0013633133	347.79%	94.51	59.07		1.12%	0.20%	10.5
11	681.772	0.001147609	344.00%	76.58	41.14		-2.11%	-0.48%	4.6
29		0.001135203	340.28%	93.97	58.53		1.38%	0.25%	10.0
7 13		0.0010207003 0.000996791	305.96% 298.79%	68.77 79.45	33.33 44.01		-2.05% -2.23%	-0.52% -0.49%	8.8 7.5
2		0.000839565	251.66%	47.19	11.75		-1.41%	-0.52%	11.2
9		0.000767958	230.20%	73.09	37.65		-2.23%	-0.53%	1.1
5		0.000549048	164.58%	63.00	27.56		-1.71%	-0.47%	3.0
3 1		0.0004941067 0.0003336053	148.11% 100.00%	53.96 35.44	18.52 0.00		-2.86% 0.00%	-0.92% 0.00%	6.0 11.4
Sound 36 NHN 23	Prequency	Tone – A Amplitude 0.0037761967	Amp Ratio 1231.75%	Pitch (MIDI #) 86.98	Interval from Fundamental 53.91	Notes ALL HARMONIC PARTIALS	Diversion (Hz)	Diversion (Pitch)	Dital Class
20		0.0037761967	1162.48%	85.34	52.27	ALL HARMONIC FARTIALS	2 1 5 0 /		
29	1584.943	0.0032467267	1059.04%				-2.15% 2.38%	-0.43%	3.0
27	1469.017		1059.04%	91.19	58.12	LOUDER THAN FUNDAMENTAL.	-2.15% 2.38% -1.04%		
25 11		0.00312021	1017.77%	89.87	58.12 56.80	LOUDER THAN FUNDAMENTAL. Significant amount of diversion	2.38% -1.04% -1.48%	-0.43% 0.48% -0.20% -0.29%	3.0 1.3 7.2 5.9
28		0.0028217033	1017.77% 920.40%	89.87 88.52	58.12 56.80 55.45	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials	2.38% -1.04% -1.48% -1.59%	-0.43% 0.48% -0.20% -0.29% -0.31%	3.0 1.3 7.2 5.9 4.5
28	621.383	0.0028217033 0.00269605	1017.77% 920.40% 879.42%	89.87 88.52 74.98	58.12 56.80	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by	2.38% -1.04% -1.48% -1.59% 2.29%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52%	3.0 1.3 7.2 5.9 4.5 3.0
18	621.383 1525.880 1018.563	0.0028217033 0.00269605 0.0026686233 0.0025763933	1017.77% 920.40% 879.42% 870.47% 840.39%	89.87 88.52	58.12 56.80 55.45 41.90	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5
18 13	621.383 1525.880 1018.563 737.307	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73%	89.87 88.52 74.98 90.53 83.53 77.94	58.12 56.80 55.45 41.90 57.46 50.46 44.87	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5
18 13 30	621.383 1525.880 1018.563 737.307 1640.117	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033 0.0024902267	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28%	89.87 88.52 74.98 90.53 83.53 77.94 91.78	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8
18 13 30 22	621.383 1525.880 1018.563 737.307 1640.117 1187.887	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033 0.0024902267 0.0023612533	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01%	-0.43% 0.48% -0.20% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19% -0.45%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2
18 13 30 22 26 9	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033 0.0024902267 0.0023612533 0.0023399467 0.00228914	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% 2.45% 2.45%	-0.43% 0.48% -0.20% -0.31% 0.52% -0.55% 0.59% -0.19% -0.45% -0.30% -0.99%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 5.2
18 13 30 22 26 9	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033 0.0024902267 0.0023612533 0.0023399467 0.00228914 0.00228021	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% -2.46% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19% -0.30% 0.59% -0.30%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 11.5 8.9
18 13 30 22 26 9 9 32 16	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613	0.0028217033 0.00269605 0.002668623 0.0025763933 0.0024916033 0.0024902267 0.0023399467 0.00228914 0.00228021 0.00228021	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% -2.70% -1.01% -2.23% -1.52% -0.85% 2.38%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.55% -0.15% -0.19% -0.45% -0.30% -0.45% -0.45% -0.30% -0.59% -0.16% 0.59%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 5.2 11.5 8.9 9.5
18 13 30 22 26 9	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024916033 0.0024902267 0.0023612533 0.0023399467 0.00228914 0.00228021	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% -2.46% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19% -0.30% 0.59% -0.30%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 11.5 8.9
18 13 30 22 26 9 32 16 24 31 33	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067	0.0028217033 0.00269605 0.002686623 0.0025763933 0.0024916033 0.0024902267 0.0023612533 0.0023399467 0.00228021 0.0022501533 0.0021387467 0.0021052967 0.0021052967 0.0021052967	1017.77% 920.40% 879.42% 879.42% 840.39% 812.73% 763.26% 746.69% 743.78% 733.97% 697.639% 686.41%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% 2.38% -1.78% -0.98% -0.63%	0.43% 0.48% -0.20% -0.23% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.30% -0.50% -0.50% -0.50% -0.50% -0.50% -0.50% -0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 5.2 11.5 8.9 9.5 3.8 8.4
18 13 30 22 26 9 32 16 24 31 33 17	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067	0.0028217033 0.0026905 0.002686623 0.0025763933 0.0024916033 0.0024902267 0.0023399467 0.00228021 0.0022501533 0.002137467 0.0021052967 0.0021052967 0.0021052967 0.0021052967	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78% 686.72% 686.41% 685.17%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.59% -2.29% -1.32% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85% -1.78% -0.98% -0.63% -0.63%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.45% -0.30% -0.45% -0.19% -0.45% -0.35% -0.18% -0.18% -0.12% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 5.2 11.5 8.9 9.5 3.8 8.4 9.5
18 13 30 22 26 9 32 16 24 31 33 17 15	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723	0.0028217033 0.00269605 0.002686623 0.0025763933 0.0024916033 0.0024902267 0.0023812533 0.002399467 0.0022801 0.0022501533 0.0021387467 0.002105267 0.002105467 0.002105467	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78% 733.97% 697.63% 686.72% 686.41% 685.17%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 80.35	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% -1.32% -1.01% -2.23% -1.52% -1.52% -1.52% -1.52% -1.52% -1.52% -2.47% -0.85% -0.85% -2.38% -0.98% -0.63% -2.42% -2.42% -2.42% -2.33%	-0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.52% -0.15% -0.19% -0.45% -0.36% -0.16% -0.36% -0.18% -0.18% -0.12% -0.12% -0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 5.9 7.8 2.2 2.1 1.5 3.8 9.5 3.8 8.4 9.5
18 13 30 22 26 9 32 16 24 31 33 17	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 961.567 947.723 395.256	0.0028217033 0.00269605 0.002686623 0.00225763933 0.0024916033 0.0024902267 0.0023814 0.00228021 0.00228021 0.00223501533 0.0021387467 0.0021052967 0.0021052967 0.0021005467 0.00190038 0.00198084367	1017.77% 920.40% 879.42% 870.47% 840.39% 812.73% 812.28% 770.21% 763.26% 746.69% 743.78% 686.72% 686.41% 685.17%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.59% -2.29% -1.32% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85% -1.78% -0.98% -0.63% -0.63%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.45% -0.30% -0.45% -0.19% -0.45% -0.35% -0.18% -0.18% -0.12% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 5.9 7.8 2.2 5.2 11.5 8.9 9.5 3.8 8.4 9.5
18 13 30 22 26 9 32 16 24 31 33 17 7 7	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 947.723 395.256 1073.853 676.672	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024910267 0.0023612533 0.0023399467 0.00228021 0.00228014 0.0021352967 0.0021052967 0.0021052967 0.001066378 0.0019684367 0.0011964633	1017.77% 920.40% 879.42% 870.47% 840.39% 812.23% 763.26% 746.69% 743.78% 743.78% 686.72% 686.72% 642.08% 642.08%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 80.35 67.14 84.45 76.45	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 43.38	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% 2.38% -1.78% -0.98% 2.42% 2.42% 2.42% 2.33% 2.24% 2.34% 2.11%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.19% 0.59% -0.18% -0.15% -0.50% 0.50% -0.18% -0.12% 0.50% 0.50% 0.48% -0.12% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 11.5 2.2 11.5 8.9 9.5 3.8 8.4 4.5 10.5
18 13 30 22 26 9 9 32 16 24 31 33 17 15 7 7 19 12	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672	0.0028217033 0.00269605 0.002686233 0.0025763933 0.0024916033 0.0024902267 0.002361253 0.00223914 0.00228021 0.0022501533 0.0021387467 0.0021052967 0.0021005467 0.0021005467 0.00190938 0.001964367 0.001964678 0.00196378	1017,77% 920,40% 879,42% 870,47% 810,47% 812,73% 812,28% 770,21% 763,26% 746,66% 746,66% 686,41% 685,17% 649,24% 642,04% 542,070% 442,28% 542,70% 442,88%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 80.35 67.14 84.45 76.45 94.01	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 60.94	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% -1.78% -0.98% -0.63% 2.42% 2.33% 2.24% 2.33%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19% -0.45% -0.19% -0.45% -0.18% -0.18% -0.18% -0.50% 0.50% 0.50% 0.50% 0.50% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 5.9 7.8 2.2 11.5 3.8 8.4 9.5 10.5 8.4 7.1 0.4 4.5
18 13 30 22 26 9 9 32 16 24 31 33 17 15 7	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.27 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024910263 0.002491253 0.002381253 0.0023814 0.00228021 0.00228021 0.0021052967 0.0021052967 0.00105495 0.00196433 0.00196433 0.00196433 0.00128626	1017.77% 920.40% 879.42% 870.47% 840.39% 812.28% 770.21% 763.26% 743.78% 697.63% 686.47% 649.24% 642.28% 642.28% 642.28% 642.24% 642.08% 642.44% 642.44% 643.64%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 80.35 67.14 84.45 76.45	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 43.38	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% -2.70% -1.01% -2.23% -1.52% 2.47% -0.85% -2.38% -1.78% -0.98% -0.63% 2.42% 2.42% 2.44% 2.34% 2.11% -0.62%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.45% -0.30% -0.10% 0.50% -0.10% 0.50% -0.18% -0.12% 0.50% 0.50% -0.18% -0.12% 0.50% -0.18% -0.12% -0.50% -0.15% -0.12% -0.50% -0.15% -0.15% -0.15% -0.50	3.0 1.3 7.2 5.9 4.5 3.0 6.5 5.9 7.8 8.9 9.5 3.8 8.4 4.5 10.5 10.5 10.0 4.5 10.0
18 13 30 22 26 9 9 32 16 24 31 33 17 15 7 7 19 12	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435	0.0028217033 0.00269605 0.002686233 0.0025763933 0.0024916033 0.0024902267 0.002361253 0.00223914 0.00228021 0.0022501533 0.0021387467 0.0021052967 0.0021005467 0.0021005467 0.00190938 0.001964367 0.001964678 0.00196378	1017,77% 920,40% 879,42% 870,47% 810,47% 812,73% 812,28% 770,21% 763,26% 746,66% 746,66% 686,41% 685,17% 649,24% 642,04% 542,070% 442,28% 542,70% 442,88%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 82.53 67.14 84.45 76.45 94.01 79.19	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 59.28 60.42 49.46 47.28 34.07 51.38 43.38 60.94 46.11	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% -1.78% -0.98% -0.63% 2.42% 2.33% 2.24% 2.33%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% -0.25% 0.51% 0.59% -0.19% -0.45% -0.19% -0.45% -0.18% -0.18% -0.18% -0.50% 0.50% 0.50% 0.50% 0.50% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 5.9 7.8 2.2 11.5 3.8 8.4 9.5 10.5 8.4 7.1 0.4 4.5
18 13 30 22 26 9 9 32 16 6 24 31 31 77 15 7 19 12 34 14 8 6 6 5	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435 452.375 340.156 281.321	0.0028217033 0.00259605 0.0026686233 0.0025763933 0.0024916033 0.00249102267 0.0023612533 0.0023339467 0.00228021 0.0022501533 0.0021387467 0.0021052967 0.0021052967 0.0021005467 0.00166378 0.001268266 0.0012436167 0.00128626 0.0012436167 0.0012174 0.00012174	1017,77% 879,42% 879,42% 870,47% 840,39% 812,28% 770,21% 763,26% 746,69% 743,78% 697,63% 686,72% 686,41% 649,24% 642,08% 419,56% 420,86% 419,56% 405,65% 307,10% 304,73% 300,82%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.53 80.35 67.14 84.45 76.45 94.01 79.19 69.48 64.54 61.26	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 43.38 60.94 46.11 36.41 31.47 28.19	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% -2.29% -1.32% -2.46% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85% -0.98% -0.63% -2.34%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.30% 0.59% -0.18% 0.50% 0.50% 0.18% 0.18% 0.18% 0.10% 0.50% 0.50% 0.18% 0.10% 0.50%	3.0 1.3 1.3 2.2 5.9 4.5 3.0 6.5 5.9 7.8 2.2 11.5 8.9 9.5 3.8 8.4 9.5 10.5 8.4 7.1 0.4 4.5 10.0 10.0 7.2 9.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
18 13 30 22 26 9 9 32 16 24 31 33 17 15 7 19 12 34 14 8 6 5 5	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435 452.375 340.156 281.321	0.0028217033 0.0025686233 0.0025686233 0.0025763933 0.0024902267 0.0023612533 0.00239399467 0.00228021 0.0022501533 0.0021052667 0.0021052667 0.001054667 0.001054667 0.0012964633 0.0012964633 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634	1017,77% 879,42% 879,42% 870,47% 840,39% 812,23% 812,23% 670,21% 743,69% 685,72% 686,72% 686,72% 686,41% 642,08% 542,70% 422,89% 405,65% 397,10% 300,42% 300,42% 300,42% 300,42% 327,93%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.95 93.50 82.35 93.50 82.53 80.35 67.14 84.45 76.45 94.01 79.19 69.48 64.54 61.26 45.61	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 59.28 60.42 49.46 47.28 34.07 51.38 60.94 46.11 36.41 31.47 28.19 12.54	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% 2.38% -1.78% -0.98% -2.23% 2.24% 2.11% -0.62% 2.24% 2.11% -0.62% 2.39% 2.39% 2.39% 2.39% 3.15%	0.43% 0.48% -0.20% -0.23% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.30% -0.58% -0.16% 0.50% 0.50% 0.50% 0.47% 0.48% 0.44% 0.59% 0.47% 0.59% 1.11%	3.0 1.33 7.22 5.9 4.5 3.0 6.5 5.9 7.8 2.2 5.2 11.5 8.9 9.5 3.8 8.4 9.5 10.0 7.2 9.5 10.0 7.2 9.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
18 13 30 22 26 9 9 32 16 6 24 31 33 17 15 7 7 19 12 34 14 14 8 6 5 5 2 2 10	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435 452.375 241.321	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024910263 0.0024902267 0.0023612533 0.0023399467 0.0021052967 0.0021052967 0.0021052967 0.0021052967 0.001195968 0.0012964633 0.0012964633 0.0012964633 0.0012964634 0.0012174 0.0012174 0.0009222257 0.000956295 0.0009856295 0.000856295	1017,77% 879,42% 879,42% 870,47% 840,39% 812,28% 770,21% 763,26% 746,69% 743,78% 686,41% 686,72% 649,24% 642,08% 419,56% 406,65% 407,06% 407,0	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 92.35 92.35 92.41 71.42 84.45 76.45 94.01 79.19 69.48 64.54 64.54 64.54 64.54 64.54 64.56 73.37	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 60.94 47.28 34.07 51.38 43.38 60.94 46.11 36.41 31.47 28.19 12.54 40.30	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% 2.38% -1.78% -0.98% 2.42% 2.42% 2.34% 2.34% 2.11% -0.62% 2.49% 2.39% 2.66% 1.88% 3.15%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.19% -0.45% -0.19% 0.59% -0.18% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50% 0.50%	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 11.5 12.2 12.2 12.3 13.3 14.4 15.1 10.4 4.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
18 13 30 22 26 9 9 32 2 16 6 24 31 33 17 15 7 7 19 12 2 34 14 14 8 6 5 5 2 2 10 36 6 4	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 477.23 1866.023 792.435 423.375 241.321 113.934 113.	0.0028217033 0.0025686233 0.0025686233 0.0025763933 0.0024902267 0.0023612533 0.00239399467 0.00228021 0.0022501533 0.0021052667 0.0021052667 0.001054667 0.001054667 0.0012964633 0.0012964633 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634 0.0012964634	1017,77% 879,42% 879,42% 870,47% 840,39% 812,23% 812,23% 670,21% 743,69% 685,72% 686,72% 686,72% 686,41% 642,08% 542,70% 422,89% 405,65% 397,10% 300,42% 300,42% 300,42% 300,42% 327,93%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.95 93.50 82.35 93.50 82.53 80.35 67.14 84.45 76.45 94.01 79.19 69.48 64.54 61.26 45.61	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 59.28 60.42 49.46 47.28 34.07 51.38 60.94 46.11 36.41 31.47 28.19 12.54	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% 2.46% 2.70% -1.01% -2.23% -1.52% 2.47% -0.85% 2.38% -1.78% -0.98% -2.23% 2.24% 2.11% -0.62% 2.24% 2.11% -0.62% 2.39% 2.39% 2.39% 2.39% 3.15%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.19% -0.50% 0.59% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.11% -0.50% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 11.5 12.2 12.2 12.2 12.3 10.5 8.9 9.5 3.8 8.4 4.5 10.5 10.0 7.2 9.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
18 13 30 22 26 9 9 32 6 16 24 4 15 5 2 2 10 36 4 35	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 676.672 1866.023 792.435 452.375 340.156 281.321 113.934 566.448 1980.327 226.232 226.232	0.0028217033 0.00259605 0.0025686233 0.0025763933 0.0024910235 0.002391253 0.002391253 0.0022399467 0.00228021 0.0022501533 0.002105467 0.002105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.00105467 0.001256463 0.001256463 0.001256463 0.001256463 0.001256463 0.001256463 0.00083414 0.0009322257 0.000856112 0.000856112 0.00085112 0.00085112 0.00085112 0.00085112 0.0008129253	1017,77% 879,42% 879,42% 870,47% 840,39% 812,28% 770,21% 746,69% 743,78% 743,27% 686,72% 686,41% 642,02% 642,02% 422,89% 442,28% 442,68% 442,68% 442,68% 452,70% 452,89% 452,70% 453,93% 453,937,10% 304,23% 307,10% 304,73% 307,10% 3	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.21 81.48 87.78 92.35 93.50 82.53 80.35 67.14 84.45 76.45 94.01 79.19 69.48 64.54 61.26 45.61 73.37 95.04 57.48 94.51	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 54.71 59.28 60.42 49.46 47.28 34.07 51.38 43.38 60.94 46.11 31.47 28.19 12.54 40.30 61.97 24.41 61.44	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% -2.29% -1.32% -2.46% -2.70% -1.01% -2.23% -1.52% -2.47% -0.85% -1.78% -0.85% -2.38% -1.78% -0.63% -2.44% -2.11% -0.62% -2.49% -2.39% -2.66% -1.88% -3.15% -2.57% -0.39% -2.41% -0.62% -0.39% -0.39% -0.39% -0.39% -0.39% -0.39% -0.39% -0.41% -0.62% -0.39% -0.39% -0.41% -0.62% -0.39% -0.63% -0.39% -0.63% -0.39% -0.63% -0.39% -0.62% -0.62%	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.25% 0.51% 0.59% -0.45% -0.45% -0.45% -0.45% -0.18% -0.18% -0.12% 0.50% 0.71% 0.55% 0.71% 0.53% 1.19% 0.53% 1.19% 0.60% 0.77% 0.72% 0.72% 0.72% 0.72% 0.77%	3.0 1.3 1.3 1.3 1.3 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5
18 13 30 22 26 9 9 32 2 16 6 24 31 33 17 15 7 7 19 12 2 34 14 14 8 6 5 5 2 2 10 36 6 4	621.383 1525.880 1018.563 737.307 1640.117 1187.887 1414.000 509.311 1752.227 904.613 1301.820 1695.277 1811.067 961.567 847.723 395.256 1073.853 452.375 340.156 281.321 113.934 566.448 1980.327 226.232	0.0028217033 0.00269605 0.0026686233 0.0025763933 0.0024910260 0.0023412533 0.00233399467 0.00228021 0.0022501533 0.0021387467 0.0021052967 0.0021052967 0.00109435 0.0011054967 0.00109435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.00128026 0.0012435 0.000850295	1017,77% 920,40% 879,42% 870,47% 840,39% 812,23% 812,23% 670,21% 763,26% 743,78% 773,397% 697,63% 686,72% 686,72% 686,17% 649,24% 642,08% 642,26% 419,56% 420,88% 649,24% 642,289% 419,56% 420,88% 649,24% 642,289% 419,56% 427,93% 300,22% 279,31% 279,31% 279,31% 279,31%	89.87 88.52 74.98 90.53 83.53 77.94 91.78 86.19 89.21 71.53 92.92 81.48 87.78 92.35 93.50 82.35 93.50 82.35 93.50 84.45 76.45 94.01 79.19 69.48 64.54 61.26 45.61 73.37 95.04 57.48	58.12 56.80 55.45 41.90 57.46 50.46 44.87 58.71 53.12 56.14 38.46 59.85 48.41 59.28 60.42 49.46 47.28 34.07 51.38 43.38 60.94 46.11 36.41 31.47 28.19 12.54 40.30 61.97 24.41	LOUDER THAN FUNDAMENTAL. Significant amount of diversion in all harmonic partials possibly caused by unsteady fundamental	2.38% -1.04% -1.48% -1.59% 2.29% -1.32% -1.01% -2.23% -1.52% -1.52% -0.85% -0.85% -0.63% -0.98% -0.63% -2.24% -0.63% -2.24% -0.62% -0.65% -0.6	0.43% 0.48% -0.20% -0.29% -0.31% 0.52% 0.51% 0.59% -0.19% -0.45% -0.19% -0.50% 0.59% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.11% -0.50% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -0.55% -0.11% -0.55% -	3.0 1.3 7.2 5.9 4.5 3.0 6.5 11.5 11.5 12.2 12.2 12.2 12.3 10.5 8.9 9.5 3.8 8.4 4.5 10.5 10.0 7.2 9.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10

				Арре	ndix 5			
Sound 1	Flute – Multiphonic		D'4-1- (111D1-4)		Notes	B:(11-)	D: (D:1-1-)	D'ALL OLIVE
NHN	Frequency Amplitude 2 1289.870 0.035577267	Amp Ratio 422.70%	Pitch (MIDI #) 87.62	Interval from Fundamental 15.14	Notes INHARMONIC	19.90%	Diversion (Pitch) 3.72%	3.6
	1 537.885 0.00841664 5 2573.817 0.00542761	100.00% 64.49%	72.48	0.00 27.10		0.00% -4.30%	0.00% -0.76%	0.5 3.6
	5 2573.817 0.00542761 6 3111.753 0.001969737	23.40%	99.58 102.87	30.39		-4.30% -3.58%		6.9
	2 999.716 0.001601147 1821.697 0.001195843	19.02% 14.21%	83.21 93.60	10.73 21.12	INHARMONIC? INHARMONIC	-7.07% 12.89%		11.2 9.6
	4 2035.883 0.000894055	10.62%	95.52	23.04	MIARMONIC	-5.38%		11.5
	1 751.683 0.000840165 1573.243 0.000732598	9.98% 8.70%	78.27 91.06	5.79 18.58	INHARMONIC	39.75% -2.50%		6.3 7.1
	4 2282.503 0.000529584	6.29%	97.50	25.02	INHARMONIC	6.09%	1.06%	1.5
	6 3325.727 0.000424734 5 2787.843 0.000326713	5.05% 3.88%	104.02 100.96	31.54 28.49	INHARMONIC INHARMONIC	3.05% 3.66%		8.0 5.0
	3 1750.397 0.000318473	3.78%	92.91	20.43	INHARMONIC	8.47%	1.54%	8.9
	4 2365.290 0.000277752 5 2499.097 0.000257707	3.30% 3.06%	98.12	25.64	INHARMONIC INHARMONIC	9.93%	1.70% -1.27%	2.1 3.1
	2 1075.853 0.000213768	2.54%	99.07 84.48	26.59 12.00	INHARMONIC?	-7.08% 0.01%	0.00%	0.5
	5 2900.563 0.00017466 3 1391.820 0.000169361	2.08% 2.01%	101.65 88.94	29.17 16.46	INHARMONIC INHARMONIC	7.85% -13.75%	1.30% -2.80%	5.6 4.9
	5 2655.253 0.000167673	1.99%	100.12	27.64	INHARMONIC	-1.27%		4.9
	3 1681.947 0.000129001	1.53%	92.21	19.74	INHARMONIC	4.23%	0.78%	8.2
Sound 2	Flute - Multiphonic (longer sa	mnle)						
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	
	2 1287.657 0.035140533 1 538.083 0.00799809	439.36% 100.00%	87.59 72.48	15.11 0.00	INHARMONIC	19.65% 0.00%	3.68% 0.00%	3.6 0.5
	5 2573.737 0.00493811	61.74%	99.58	27.10	Harmonic of loudest partial?	-4.34%	-0.76%	3.6
	6 3111.747 0.001781223 1 749.569 0.00104071	22.27% 13.01%	102.87 78.22	30.38 5.74	INHARMONIC	-3.62% 39.30%	-0.62% 7.92%	6.9 6.2
	3 1826.170 0.00083534	10.44%	93.64	21.16	INHARMONIC	13.13%	2.33%	9.6
	4 2035.440 0.00083291 2 996.965 0.000575109	10.41% 7.19%	95.52 83.16	23.03 10.68	INHARMONIC INHARMONIC	-5.43% -7.36%	-1.00% -1.57%	11.5 11.2
	7 3861.560 0.00056532	7.07%	106.60	34.12	INHARMONIC	2.52%	0.41%	10.6
	6 3323.447 0.000401377 5 2784.067 0.000297231	5.02% 3.72%	104.01 100.94	31.52 28.46	INHARMONIC INHARMONIC	2.94% 3.48%	0.48% 0.59%	8.0 4.9
	5 2500.313 0.00022558	2.82%	99.08	26.59	INHARMONIC	-7.07%		3.1
	2 1076.823 0.000185364 7 3648.930 0.000182824	2.32% 2.29%	84.49	12.01 33.14		0.06%		0.5
	6 3015.967 0.000166236	2.08%	105.62 102.32	29.84	INHARMONIC	-3.12% -6.58%	-1.14%	9.6 6.3
	8 4479.630 0.000127218	1.59%	109.17	36.69	INHARMONIC	4.06%	0.64%	1.2
Sound 2	Flute - singing and playing	unison						
Sound 3 NHN		Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	
	1 291.807 0.017103967 5 1465.830 0.00565518	100.00% 33.06%	61.89 89.83	0.00 27.94		0.00% 0.47%	0.00% 0.09%	1.9 5.8
	3 888.248 0.004459677	26.07%	81.16	19.27		1.47%	0.31%	9.2
	2 591.899 0.00361252 6 1751.733 0.000921244	21.12%	74.13	12.24		1.42%	0.33%	2.1
	6 1751.733 0.000921244 7 2052.463 0.000808127	5.39% 4.72%	92.92 95.66	31.03 33.77		0.05% 0.48%	0.01% 0.09%	8.9 11.7
	3236.740 0.000295816	1.73%	103.55	41.66		0.84%	0.14%	7.5 4.0
	9 2639.463 0.000262921 8 2408.307 0.000217907	1.54% 1.27%	100.02 98.43	38.13 36.54		0.50% 3.16%	0.09% 0.55%	2.4
1	2929.417 0.000217144	1.27%	101.82	39.93		0.39%	0.07%	5.8
	8 2351.627 0.000183151 8 2199.907 0.000169381	1.07% 0.99%	98.02 96.86	36.13 34.97		0.74% -5.76%	0.13% -1.05%	2.0 0.9
				07.04				3.1
		0.98%	99.13	37.24		-4.49%	-0.80%	
	3015.180 0.000164539	0.98% 0.96% 0.59%	102.32 103.91	37.24 40.43 42.01		-4.49% 3.33% 2.94%	0.56% 0.49%	6.3 7.9
	3015.180 0.000164539 3304.257 0.000101307 6 1669.073 8.7101E-005	0.96% 0.59% 0.51%	102.32 103.91 92.08	40.43 42.01 30.19		3.33% 2.94% -4.67%	0.56% 0.49% -0.89%	6.3 7.9 8.1
	3015.180 0.000164539 3304.257 0.000101307	0.96% 0.59%	102.32 103.91	40.43 42.01		3.33% 2.94%	0.56% 0.49%	6.3 7.9
	3015.180 0.000164539 3304.257 0.000101307 6 1669.073 8.7101E-005	0.96% 0.59% 0.51%	102.32 103.91 92.08	40.43 42.01 30.19		3.33% 2.94% -4.67%	0.56% 0.49% -0.89%	6.3 7.9 8.1
	3015.180 0.000164539 3304.257 0.000101307 6 1669.073 8.7101E-005	0.96% 0.59% 0.51% 0.38%	102.32 103.91 92.08	40.43 42.01 30.19		3.33% 2.94% -4.67%	0.56% 0.49% -0.89%	6.3 7.9 8.1
	3015.180 0.000164539 3304.257 0.000101307 6 1669.073 8.7101E-005 5 1591.717 6.4371E-005 Flute - singing and playing - Serguency Amplitude	0.96% 0.59% 0.51% 0.38%	102.32 103.91 92.08 91.26	40.43 42.01 30.19 29.37	Notes	3.33% 2.94% -4.67% 9.09%	0.56% 0.49% -0.89% 1.68%	6.3 7.9 8.1 7.3
Sound 4	3015.180 0.000164539 3304.257 0.000101307 6 1669.073 8.71015-005 5 1591.717 6.4371E-005	0.96% 0.59% 0.51% 0.38%	102.32 103.91 92.08 91.26	40.43 42.01 30.19 29.37	Notes LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09%	0.56% 0.49% -0.89% 1.68%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8
Sound 4	3015.180 0.000164539 3015.257 0.000110307 6 1699.073 8.7101E-005 5 1591.717 6.4371E-005 Flute - singing and playing - Frequency Amplitude 1 324.109 0.00387177 5 1305.077 0.00377746 1 258.913 0.003573927	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.8
Sound 4	3015.180 0.000164639 3015.180 3000164639 3015.180 3.7101E-005 5 1591.717 6 4.371E-005 Frequency	0.96% 0.59% 0.51% 0.38% 3 rd Amp Ratio 109.05% 107.50%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8
Sound 4	3015.180 0.000164539 6 1698.073 8.7101E-005 5 1591.717 6.4371E-005 Flute - singing and playing -: Frequency 300331777 5 1305.077 0.00377746 1 258.913 0.003513927 2 520.817 0.002676578 3 649.879 0.00243568	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 76.17% 69.32%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.8 11.9 7.1 3.8
Sound 4	3015.180 0.000164539 1591.717 6.4371E-005 5 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 1591.7	9°° Amp Ratio 109.05% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 27.73% 24.23%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.02% 0.14% 0.27% -3.92% 0.11%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.8 11.9 7.1 3.8 11.9 8.3
Sound 4	3015.180 0.000164639 1689.073 8.7101E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1324.09 0.003831777 1305.077 0.00377746 259.913 0.003513927 252.817 0.003513927 3649.879 0.002676578 4.43.09 0.00085147 1360.09 0.00085147 1360.09 0.00087443 1360.09 0.00087443 1360.09 0.00087437 1360.09 0.00085147 1360.09 0.00085147 1360.09 0.00085147 1360.09 0.00087443 1360.09 0.00085147 0.00085147 0.000	3 ³⁴ Amp Ratio 109.05% 107.50% 109.05% 107.50% 100.00% 59.91% 76.17% 69.32% 27.73% 24.23% 19.95%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.000 12.10 19.23 15.93 24.09 20.46 28.72	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% 0.11% 1.83% 0.97%	6.3 7.9 8.1 7.3 Pitch Class 11.8 11.9 7.1 3.8 11.9 8.3 4.5
Sound 4	3015.180 0.000164639 1689.073 8.7101E-005 5 1591.717 6.4371E-005 5 1591.717 6.4371E-005 1591.717 6.4371E-005 1 324.10 0.00383177 1305.077 0.00377746 2 520.817 0.003513927 2 520.817 0.003510967 3 786.362 0.002676678 4 1041.300 0.000974437 3 44.312 0.000541675 1360.053 0.000700886 9 2361.730 0.000344514 9 2361.730 0.000344514 9 2361.730 0.000344514 1 300.00084618 9 2361.730 0.000344514 1 300.000814514 1 300.000814514 3 3 3 3 3 3 3 3 3	9.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 76.17% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 98.09	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27	LOUDER THAN FUNDAMENTAL	3.33% 2.94% -4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% 16.33% 0.55% 8.70% 5.06% -12.34%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24%	6.3 7.9 8.1 7.3 Pitch Class 11.8 11.9 7.1 3.8 11.9 8.3 4.5 9.5
Sound 4	3015.180 0.000164639 3015.180 0.000164639 557 0.00011307 669.073 8.7101E-005 591.717 6.4371E-005 Frequency	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 99.91% 69.32% 27.73% 24.23% 11.13% 9.80% 8.77%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 98.09 90.16	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 16.33% 0.55% 8.70% 5.006% 12.34% 1.35%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.01% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75%	Pitch Class 3.7 3.8 11.8 11.9 7.1 3.8 3.9 5.2 1.6 6.2
Sound 4	3015.180 0.000164639 3015.180 0.000164639 5591.717 6.4371E-005 5591.717 6.4371E-005 5591.717 6.4371E-005 5591.717 6.4371E-005 6.43	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 8.77% 7.30% 5.36%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 98.09 90.16 86.82 96.49	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 16.33% 0.55% 8.70% 5.06% 12.34% 1.35% 4.88% 3.98%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% 0.24% -0.75% -0.99%	Pitch Class 3.7 3.8 11.8 11.9 7.1 3.8 4.5 9.5 2.1 6.2 2.8 0.5
Sound 4	## 3015.180	9.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 76.17% 69.32% 27.73% 69.32% 24.23% 11.13% 9.80% 8.77% 7.30% 5.36% 5.31%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 98.09 90.16 86.82 96.49 89.20	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1-16.33% 0.55% 8.70% 5.06% 12.34% 1.35% -3.85% 4.88% 3.98% 9.14%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2
Sound 4	3015.180	9" Amp Ratio 109.05% 107.50% 107.50% 100.00% 99.91% 69.32% 24.23% 19.95% 11.13% 9.80% 8.77% 7.30% 5.36% 5.31% 5.00% 4.38%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 0.58% 0.55% 8.70% 5.06% 12.34% 1.35% 3.85% 4.88% 3.98% 9.14% -10.72%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -0.11% 1.83% 0.97% -2.72% 0.24% 0.75% -0.75% -1.75% -2.72% 0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75% -0.75%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2
Sound 4	3015.180 0.000164639 3015.180 3000164639 3015.180 3.7101E-005 5 1591.717 6 4.4371E-005 5 1591.717 6 4.4371E-005 5 1591.717 6 4.4371E-005 6 6 6 6 6 6 6 6 6	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 227.73% 24.23% 11.13% 8.77% 7.30% 8.77% 5.36% 5.31%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 90.16 86.82 96.49 89.20 69.86	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% 1-16.33% 8.70% 5.06% 12.34% 1.35% -4.88% 3.98% 9.14%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 6.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.75% -0.99% 0.70% 1.73% 6.70% -1.73% 0.71% -1.73% -2.73% 0.71% -1.99%	Pitch Class 3.7 3.8 11.9 7.1 3.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9
Sound 4	3015.180 0.000164639 1698.073 3.7101E-005 5 1591.717 6.4371E-005 5 1591.717 6.4371E-005 1591.717 6.4371E-005 1 324.109 0.003831777 1 258.913 0.003510927 2 520.817 0.003510927 2 520.817 0.003510927 2 520.817 0.002676578 4 1041.300 0.009074437 1 360.053 0.000346514 360.053 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.00035451 4 4 3.613 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4	0.96% 0.59% 0.51% 0.38% 23° Amp Ratio 109.05% 107.50% 100.00% 99.91% 76.17% 69.32% 69.32% 24.23% 24.23% 24.23% 11.13% 8.87% 7.30% 7.30% 7.30% 7.30% 7.30% 7.30% 4.30%	102.32 103.91 92.08 91.26 91.2	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 4.88% 3.98% 9.14% 3.91% 9.16% 3.91%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 6.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.75% -0.99% 0.70% 1.73% 6.70% -1.73% 0.71% -1.73% -2.73% 0.71% -1.99%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.9 7.1 3.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9
Sound 4	3015.180 0.000164639 1698.073 3.7101E-005 5 1591.717 6.4371E-005 5 1591.717 6.4371E-005 1591.717 6.4371E-005 1 324.109 0.003831777 1 258.913 0.003510927 2 520.817 0.003510927 2 520.817 0.003510927 2 520.817 0.002676578 4 1041.300 0.009074437 1 360.053 0.000346514 360.053 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.000344514 4 4 3.613 0.00035451 4 4 3.613 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4 3.613 0.00035451 4 4	0.96% 0.59% 0.51% 0.38% 23° Amp Ratio 109.05% 107.50% 100.00% 99.91% 76.17% 69.32% 69.32% 24.23% 24.23% 24.23% 11.13% 8.87% 7.30% 7.30% 7.30% 7.30% 7.30% 7.30% 4.30%	102.32 103.91 92.08 91.26 91.2	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12	LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 4.88% 3.98% 9.14% 3.91% 9.16% 3.91%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 6.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.75% -0.99% 0.70% 1.73% 6.70% -1.73% 0.71% -1.73% -2.73% 0.71% -1.99%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.9 7.1 3.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9
Sound 4 NHN	3015.180 0.000164639 3015.180 3015.257 0.000114307 6 1691.717 6 1591.717 6 1491.717 6	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 107.50% 109.91% 69.92% 69.32% 69.32% 69.32% 69.32% 67.73% 24.23% 24.73% 24.73% 5.31% 7.30% 4.30% 4.30% 4.30% 4.30%	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.27 91.92 79.05 75.75 83.91 80.28 88.54 81.54 90.16 86.82 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% 1-6.33% 0.55% 8.70% 5.06% -12.34% 1.35% -3.85% -4.88% 9.14% 1-0.72% 3.91% -9.60% -5.24%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -2.73% 0.71% -1.99% -0.95%	6.3 7.9 8.1 7.3 Pitch Class 3.7 3.8 11.9 7.1 3.8 11.9 8.3 9.5 2.1 6.2 2.8 0.5 5.2 9.9
Sound 4 NHN	3015.180 0.000164639 3015.180 3015.257 0.000114307 6 1691.717 6 1591.717 6 1491.717 6	9" Amp Ratio 109.05% 107.50% 109.05% 107.50% 109.05% 107.50% 99.91% 76.17% 69.32% 24.23% 11.13% 9.80% 8.77% 7.30% 5.31% 5.36% 4.33% 4.33% 4.33%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 1.55% 8.70% 5.06% 1.2.34% 1.35% 4.88% 3.98% 3.98% 9.14% -10.72% 3.91% -9.60% -5.24%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% -7.79% -2.73% -2.73% -1.99% -0.95%	Pitch Class 3.7 3.8 11.8 11.9 7.1 3.8 3.9 5.5 2.1 6.2 2.8 9.9 10.2 1.9 0.9
Sound 4 NHN	3015.180 0.000164639 1669.073 8.7101E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717 6.4371E-005 1591.717	9.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 99.91% 69.32% 27.73% 24.23% 11.13% 9.80% 5.36% 5.31% 4.30% 5.36% 4.38% 4.30% 5.25%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 0.55% 8.70% 5.006% 1-2.34% 1.35% 4.88% 9.14% 10.72% 3.91% -9.60% -5.24%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% 0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00%	Pitch Class 11.9 1.2 2.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
Sound 4 NHN	3015.180 0.000164639 1698.073 3.7101E-005 591.717 6.4371E-005 591.717 6.4371E-005 591.717 6.4371E-005 6.438717 6.00051476 6.4371E-005 6.438717 6.438	9" Amp Ratio 109.05% 107.50% 100.00% 99.91% 76.17% 69.32% 27.73% 24.23% 11.13% 9.80% 8.77% 7.30% 5.36% 4.30% 4.30% 2.25%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 16.33% 0.55% 8.70% 5.06% 4.234% 1.35% 4.88% 3.98% 9.14% -10.72% 3.91% -9.60% -5.24%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% -2.73% 0.71% -1.99% -0.95%	Pitch Class 11.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9
Sound 4 NHN	3015.180	9" Amp Ratio 109.05% 107.50% 9.91% 69.32% 24.23% 19.95% 11.13% 9.80% 5.36% 4.30% 2.25% Amp Ratio 100.00% 6.17% 6.17% 6.17% 6.17% 6.31% 6.36% 4.30% 6.36% 4.30% 6.36%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.98 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 16.33% 0.55% 8.70% 5.06% 12.34% 1.35% 4.88% 3.98% 9.14% -10.72% 9.60% -5.24% Diversion (Hz) 48.76% 0.00% 0.62% 0.60%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% -2.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.01% 0.14% 0.00%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9
Sound 4 NHN	3015.180 0.00164639 3015.180 3015.257 0.000114307 669.073 8.7101E-005 591.717 6.4371E-005 Frequency	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 27.73% 24.23% 24.23% 19.85% 11.13% 9.80% 5.36% 5.31% 5.00% 4.38% 4.39% 4.39% 4.39% 4.39% 4.30% 6.00% 9.161% 87.1000% 91.61%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.41 87.85 96.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 0.55% 8.70% 5.06% -12.34% 1.35% 4.88% 9.14% 9.60% -5.24% Diversion (Hz) Diversion (Hz) 0.00% 0.60%	0.56% 0.49% -0.89% 1.68% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 6.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.14% 0.02% 0.14%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 2.1 6.2 2.8 0.5 5.2 9 10.2 1.9 0.9
Sound 4 NHN	3015.180 0.000164639 3015.180 3.00164639 5.57 0.000114307 6.4371E-005 5.4371E-005	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 69.32% 69.32% 11.13% 69.32% 5.56% 5.31% 7.30% 4.33% 4.30% 2.25% Amp Ratio 163.10% 100.00% 91.61% 81.19% 60.83% 60.83% 61.55% 61.55%	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.26 91.27 91.92 91.95 91.95 91.95 91.95 91.96 91.96 91.96 91.96 91.97 91.9	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15 29.35	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 1.35% -3.85% -4.88% 9.14% 9.14% -5.24% Diversion (Hz) 48.76% 0.00% -0.62% 0.60% 0.11% 11.41% 0.76% 8.99%	0.56% 0.49% -0.89% 1.68% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -2.72% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.01% 0.02% 0.14% 0.02% 2.23% 0.14%	Pitch Class 3.7 3.8 11.9 7.1 3.8 11.9 8.3 11.9 8.3 10.5 9.5 2.1 10.2 2.8 0.5 5.2 9.9 10.2 1.9 1.9 1.9 1.9 1.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Sound 4 NHN	3015.180 0.000164639 3015.180 3.000164639 5191.717 6.4371E-005 5191.717 6.4371E-005 5191.717 6.4371E-005 5191.717 6.4371E-005 6.43	9-9" Amp Ratio 109.05% 107.50% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 5.36% 5.31% 5.00% 4.30% 2.25% Amp Ratio 163.10% 60.38% 32.15% 61.83% 32.15%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 1.55% 8.70% 5.06% 8.70% 5.06% 4.88% 3.98% 9.14% -10.72% 3.91% -5.24% Diversion (Hz) 48.76% 0.00% 0.62% 0.60% 0.11% 11.41%	0.56% 0.49% -0.89% 1.68% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -2.72% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.01% 0.02% 0.14% 0.02% 2.23% 0.14%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9 Pitch Class 1.9 0.9 Pitch Class 1.9 1.0 1.0 1.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Sound 4 NHN	3015.180	9.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 24.23% 11.13% 9.80% 5.36% 5.36% 5.36% 5.36% 6.38% 4.30% 2.25% Amp Ratio 100.00% 91.61% 60.83% 32.15% 16.55% 15.91% 61.55% 15.91% 13.72% 10.78% 9.10%	102.32 103.91 92.08 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 81.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 Pitch (MIDI #) 66.77 59.90 87.65 72.00 78.94 85.77 91.05 83.91 85.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15 29.35 23.83 32.25 35.92	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 5.06% -10.33% 1.35% 4.88% 9.14% -10.72% 3.91% -9.60% -5.24% Diversion (Hz) 48.76% 0.00% 0.11% 11.41% 0.76% 8.99% -1.94% -0.48%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% 0.75% -0.99% 0.70% 1.73% -2.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.14% 0.02% 0.14% 0.02% 0.14% 1.73% -0.23% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% -0.09% -0.09% -0.09% -0.09% -0.09% -0.09% -0.09% -0.09%	Pitch Class 11.9 10.2 10.2 10.2 10.2 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3
Sound 4 NHN	3015.180	0.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 69.32% 69.32% 69.32% 11.13% 69.32% 6	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.27 91.82 91.92 91.92 91.93 91.9	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15 29.35 23.83 32.25	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% 1-16.33% 0.55% 8.70% 4.88% 9.14% 1.35% -3.85% -4.88% 9.14% 9.14% 9.60% -5.24% Diversion (Hz) 48.76% 0.00% 0.11% 11.41% 0.76% 8.99% -0.98% 7.34%	0.56% 0.49% -0.89% 1.68% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% -0.27% -0.95% 0.71% 1.83% 0.77% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 1.23% 0.14% 0.00% 0.14% 0.135% 0.14% 1.35% 0.00% 0.14% 0.135% 0.14% 0.135% 0.14% 0.135% 0.14% 0.135% 0.18%	6.3 7.9 8.1 7.3 Pitch Class 11.9 8.3 11.9 8.3 11.9 8.3 9.5 2.1 1.9 9.5 2.1 1.9 9.5 2.1 0.5 9.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9
Sound 4 NHN	3015.180	9-9-6 0.59% 0.51% 0.58% 0.51% 0.38% Amp Ratio 109.05% 107.50% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 5.36% 5.31% 5.00% 4.38% 4.30% 2.25% Amp Ratio 163.10% 60.83% 32.15% 60.83% 32.15% 61.55% 15.51% 5.55% 15.51% 5.78% 9.1078 8.28% 9.1078 9.1078	102.32 103.91 92.08 91.26 91.2	Material Material	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 8.70% 5.06% 8.70% 5.06% 8.70% 5.06% 8.70% 5.06% 6.12.34% 1.35% 4.88% 3.98% 9.14% -10.72% 0.60% 0.11% 11.41% 0.76% 8.99% 0.98% 7.34% 0.48% 4.69% 0.081%	0.56% 0.49% -0.89% 1.68% Diversion (Pitch) 6.50% 0.16% 0.00% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% 0.75% -0.99% 0.70% 1.73% -2.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.14% 0.01% 0.14% 0.01% 0.14% 0.02% 2.23% 0.14% 1.70% 0.14% 0.02% 2.23% 0.14% 1.70% 0.20% 1.35% 0.14% 0.14% 0.02% 0.23% 0.14% 0.14% 0.00% 0.20% 0.14% 0.14% 0.00% 0.20% 0.14% 0.00% 0.20% 0.34% 0.14% 0.00% 0.34% 0.34%	Pitch Class 3.7 3.8 11.8 11.9 3.4 5.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9 Pitch Class 11.9 6.8 11.9 6.9 1.8 11.9 1.7 1.1 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9
Sound 4 NHN	3015.180	0.96% 0.59% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 4.33% 4.23% 5.36% 5.31% 6.00% 4.38% 4.39% 4.39% 4.39% 6.03% 6.00% 91.61% 6.03% 6.15% 6.15% 15.91% 13.72% 10.78% 13.72% 10.78% 8.28% 6.28% 6.29%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 90.16 86.82 90.16 86.82 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15 29.38 32.25 35.92 38.83 39.72	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 5.06% 1-1.24% 1.35% 4.88% 9.14% 9.14% 9.60% -5.24% Diversion (Hz) Diversion (Hz) 0.00% -0.62% 0.60% 0.11% 0.76% 8.99% -0.98% 7.34% 4.69% -0.98% -0.81%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.10% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% 0.70% 1.73% 0.71% -1.99% -0.95% 0.70% 1.73% 0.71% -1.99% -0.95%	Pitch Class 3.7 3.8 11.8 11.9 8.3 4.5 2.1 6.2 2.8 0.5 5.2 1.9 0.9 Pitch Class 11.9 1.9 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
Sound 4 NHN	Substitute	0.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 6	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.26 91.27 91.05 75.75 83.91 80.28 88.54 81.54 90.16 86.82 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 96.93 97.90 87.50 88.51 88.52 98.41 89.20 89.41 89.20 89.41 89.20 89.41 89.20 89.41 89.41 89.51 80.8	Material Material	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 1.35% -3.85% -4.88% 9.14% 9.14% 0.00% 0.55.24% Diversion (Hz) 48.76% 0.00% 0.11% 0.76% 48.76% 0.00% 0.11% 0.76% 8.99% -0.48% 4.69% -0.48% 1.95% -1.27% 23.99% -3.55% -1.27% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.16% 0.10% 0.14% 0.27% -0.75% -0.99% 0.71% 1.73% 0.71% -1.99% -0.75% -0.95% 0.71% 1.73% 1.73% 0.74% 1.70% 1.70% 1.70% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.22% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35%	Pitch Class 11.9 13.8 11.9 14.5 15.2 19.1 10.5 10.5 10.5 10.5 10.5 10.5 10.6 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.3 10.7 10.6 10.8 10.9 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8
Sound 4 NHN	3015.180	9.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 5.36% 5.36% 5.31% 5.36% 5.31% 5.00% 4.38% 4.30% 2.25% Amp Ratio 163.10% 60.03% 4.39% 4.39% 5.36% 61.51% 60.83% 32.15% 81.19% 60.83% 32.15% 81.19% 60.83% 32.15% 81.19% 60.83% 32.15% 81.19% 60.83% 32.15% 81.19% 60.83% 32.15% 3.72% 10.78% 9.10% 8.28% 5.78% 6.78% 9.10% 8.28% 5.78% 6.78% 9.10% 8.28% 5.78% 9.10% 8.28% 5.78% 9.10% 8.28% 5.78% 9.10% 8.28% 5.78% 9.10% 8.28% 5.78% 9.10% 8.28% 5.78% 9.10%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 96.93 Pitch (MIDI #) 66.77 59.90 87.65 72.00 78.94 88.73 99.25 88.73 99.21 88.73 99.25 88.73 99.27 101.19 96.29 88.73	40.43 42.01 30.19 29.37	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% 12.34% 1.35% 4.88% 9.14% -10.72% 3.91% -9.60% -5.24% Diversion (Hz) 48.76% 0.60% 0.62% 0.60% 0.11% 11.41% 0.76% 8.99% -1.48% 4.69% -0.98% -1.27% 3.39%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.10% 0.14% 0.27% -2.72% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.75% -0.995% 0.71% 1.73% 0.71% 1.99% -0.95% 0.14% 1.00% 0.14% 0.00% 0.14% 0.02% 0.14% 0.04% 0.04% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.14% 0.06% 0.16% 0.06% 0.16% 0.06% 0.16% 0.06% 0.16% 0.06	Pitch Class 3.7 3.8 11.8 11.9 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9 Pitch Class 1.8 1.1 6.2 2.8 2.8 2.8 3.7 3.8 3.8 3.7 3.8 3.8 3.7 3.8 3.8 3.7 3.8 3.8 3.7 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8
Sound 4 NHN	Substitute	0.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 6	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.26 91.27 91.05 75.75 83.91 80.28 88.54 81.54 90.16 86.82 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 96.93 97.90 87.50 88.51 88.52 98.41 89.20 89.41 89.20 89.41 89.20 89.41 89.20 89.41 89.41 89.51 80.8	Material Material	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 1.35% -3.85% -4.88% 9.14% 9.14% 0.00% 0.55.24% Diversion (Hz) 48.76% 0.00% 0.11% 0.76% 48.76% 0.00% 0.11% 0.76% 8.99% -0.48% 4.69% -0.48% 1.95% -1.27% 23.99% -3.55% -1.27% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.16% 0.10% 0.14% 0.27% -0.75% -0.99% 0.71% 1.73% 0.71% -1.99% -0.75% -0.95% 0.71% 1.73% 1.73% 0.74% 1.70% 1.70% 1.70% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.22% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35%	Pitch Class 11.9 13.8 11.9 14.5 15.2 19.1 10.5 10.5 10.5 10.5 10.5 10.5 10.6 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.3 10.7 10.6 10.8 10.9 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8
Sound 4 NHN	3015.180	9.96% 0.59% 0.51% 0.38% 0.51% 0.38% 0.51% 0.38% 100.00% 99.91% 69.32% 27.73% 24.23% 19.95% 11.13% 9.80% 5.36% 5.31% 5.30% 4.38% 4.30% 2.25% Amp Ratio 163.10% 60.83% 32.15% 60.83% 32.15% 61.55% 15.91% 60.83% 32.15% 91.61% 81.19% 60.83% 32.15% 91.61% 81.19% 60.83% 32.15% 91.61% 81.19% 91.79%	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.26 91.27 91.05 75.75 83.91 80.28 88.54 81.54 90.16 86.82 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 96.93 97.90 87.50 88.51 88.52 98.41 89.20 89.41 89.20 89.41 89.20 89.41 89.20 89.41 89.41 89.51 80.8	Material Material	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.00% 0.58% 1.24% -16.33% 0.55% 8.70% 5.06% -12.34% 1.35% -3.85% -4.88% 9.14% 9.14% 0.00% 0.55.24% Diversion (Hz) 48.76% 0.00% 0.11% 0.76% 48.76% 0.00% 0.11% 0.76% 8.99% -0.48% 4.69% -0.48% 1.95% -1.27% 23.99% -3.55% -1.27% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.16% 0.10% 0.14% 0.27% -0.75% -0.99% 0.71% 1.73% 0.71% -1.99% -0.75% -0.95% 0.71% 1.73% 1.73% 0.74% 1.70% 1.70% 1.70% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.22% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35% 1.70% 1.35%	Pitch Class 11.9 13.8 11.9 14.5 15.2 19.1 10.5 10.5 10.5 10.5 10.5 10.5 10.6 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.2 10.9 10.3 10.7 10.6 10.8 10.9 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8
Sound 4 NHN Sound 5 NHN Sound 6 NHN	3015.180	9.96% 0.59% 0.51% 0.38% 0.51% 0.38% 0.51% 0.38% 100.00% 99.91% 69.32% 27.73% 24.23% 11.13% 9.80% 5.36% 5.31% 5.31% 5.31% 5.31% 5.31% 6.00% 9.161% 6.00% 9.161% 81.19% 60.83% 32.15% 10.78% 32.15% 11.79% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72% 10.78% 5.78% 13.72%	102.32 103.91 92.08 91.26 91.26 Pitch (MIDI #) 63.71 87.82 59.82 71.92 79.05 75.75 83.91 80.28 88.54 98.09 90.16 86.82 96.49 89.20 69.86 94.17 85.93 96.93 Pitch (MIDI #) 66.77 59.90 87.65 72.00 78.94 88.73 99.25 88.73 99.21 88.73 99.25 88.73 99.27 101.19 97.562 99.13 92.74	Material Material	Notes LOUDER THAN FUNDAMENTAL Notes Notes Notes	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 0.55% 8.70% 5.06% 1-2.34% 1.35% 4.88% 9.14% 10.72% 3.91% -9.60% -5.24% Diversion (Hz) Diversion (Hz) 48.76% 0.00% 0.11% 11.41% 0.76% 8.99% 11.41% 0.76% 8.99% 11.45% 1.95% -1.27% 23.99% -3.59% -4.75%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.10% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -0.24% 0.75% -0.99% 0.70% 1.73% -2.72% 0.71% -1.99% 0.71% -1.99% 0.70% 1.49% 0.14% 0.12% 0.14% 0.12% 0.14% 0.14% 0.12% 0.14% 0.15%	Pitch Class 3.7 3.8 11.8 11.9 3.7 3.8 11.9 9.5 2.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 0.9 Pitch Class 1.7 3.7 3.6 3.7 3.8 1.8 1.9 1.9 1.8 1.8 1.9 1.9 1.8 1.8 1.9 1.9 1.8 1.8 1.9 1.9 1.8 1.8 1.8 1.9 1.9 1.8 1.8 1.8 1.8 1.8 1.8 1.9 1.9 1.8 1.8 1.8 1.8 1.8 1.8 1.9 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8
Sound 4 NHN Sound 5 NHN Sound 6 NHN	3015.180	0.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 100.00% 99.91% 69.32% 22.73% 24.23% 19.95% 11.13% 9.80% 5.31% 5.00% 4.33% 4.30% 2.25% Amp Ratio 163.10% 100.00% 91.61% 60.83% 60.83% 60.83% 15.91% 13.72% 60.83% 15.91% 13.72% 10.78% 15.78% 17.78%	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.26 91.27 91.92 91.90 91.9	40.43 42.01 30.19 29.37 Interval from Fundamental 3.89 28.00 0.00 12.10 19.23 15.93 24.09 20.46 28.72 21.72 38.27 30.34 27.00 36.68 29.38 10.04 34.35 26.12 37.11 Interval from Fundamental 6.88 0.00 27.76 12.10 19.04 25.87 31.15 29.35 23.83 32.25 38.37 31.15 29.38 30.22 38.83 39.72 38.37 41.29 15.72 39.23 32.85	Notes LOUDER THAN FUNDAMENTAL Notes LOUDER THAN FUNDAMENTAL	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 1.24% 1.633% 1.55% 3.95% 4.88% 9.14% 9.60% 5.24% Diversion (Hz) 48.76% 0.00% -0.62% 0.60% 0.11% 0.76% 4.89% 4.69% -0.98% 4.69% -0.98% 4.69% -0.81% 1.95% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -3.59% -4.75%	0.56% 0.49% -0.89% 1.68% 1.68% 1.68% 0.16% 0.10% 0.14% 0.27% -3.92% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 11.48% 0.00% -0.12% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 5.18% -0.14% 0.34% 0.14% 0.34% -0.22% 5.18% -0.29%	Pitch Class 11.9 13.8 11.9 14.5 15.9 16.2 19.9 10.2 19.9 10.2 19.9 10.2 19.9 10.2 19.9 11.8 11.9 11.8 11.9 11.8 11.9 11.8 11.8
Sound 4 NHN Sound 5 NHN Sound 6 NHN	Substitute	0.96% 0.59% 0.51% 0.38% 0.51% 0.38% Amp Ratio 109.05% 107.50% 109.91% 69.32% 6	102.32 103.91 92.08 91.26 91.26 91.26 91.26 91.26 91.27 91.92 91.90 92.74 92.74 93.91 94.17 95.93 96.93 96.93 96.93 96.93 96.93 97.90 97.9	Material Material	Notes LOUDER THAN FUNDAMENTAL Notes Notes Notes	3.33% 2.94% 4.67% 9.09% Diversion (Hz) 25.18% 0.81% 0.05% 6.58% 8.70% 5.66% -12.34% 1.35% -3.85% -4.88% 9.14% 9.14% 9.60% -5.24% Diversion (Hz) 48.76% 0.00% 0.11% 9.60% -0.81% 1.23% 1.23% 1.25% 1.27% 1.23.99% -3.59% -4.75%	0.56% 0.49% -0.89% 1.68% 1.68% 0.16% 0.16% 0.10% 0.14% 0.27% -2.72% 0.11% 1.83% 0.97% -2.72% 0.24% -0.75% -0.99% 0.70% 1.73% 0.71% -1.99% -0.95% Diversion (Pitch) 1.48% 0.00% -0.12% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 1.35% 0.14% 0.02% 0.14% 0.02% 1.35% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.02% 0.14% 0.09% 0.14% 0.09% 0.14% 0.09%	6.3 7.9 8.1 7.3 Pitch Class 11.8 11.9 8.3 11.9 8.3 9.5 9.5 6.1 6.2 2.8 0.5 5.2 9.9 10.2 1.9 10.9 Pitch Class 11.9 1.8 1.1 1.8 1.7 1.1 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9

2	387.184 0.001734763	85.59%	66.79	12.00		-0.01%	0.00%	6.8
10	1937.587 0.00140951	69.54%	94.66	39.88		0.08%	0.01%	10.7
9	1743.697 0.001283037	63.30%	92.84	38.05		0.07%	0.01%	8.8
3	581.731 0.000897784	44.30%	73.83	19.05		0.16%	0.04%	1.8
6	1161.803 0.000705746	34.82%	85.81	31.02		0.01%	0.00%	1.8
5	968.453 0.000475659	23.47%	82.66	27.87		0.04%	0.01%	10.7
8	1549.507 0.000397082	19.59%	90.79	36.01		0.04%	0.01%	6.8
4	774.662 0.000196129	9.68%	78.79	24.01		0.03%	0.01%	6.8
10	2018.087 0.000142613	7.04%	95.37	40.58	INHARMONIC	4.23%	0.76%	11.4
4	838.101 0.000079145	3.90%	80.16	25.37	INHARMONIC	8.22%	1.74%	8.2
5	1042.887 7.1611E-005	3.53%	83.94	29.15	INHARMONIC	7.73%	1.56%	11.9
6	1227.103 5.8806E-005	2.90%	86.76	31.97	INHARMONIC	5.63%	1.11%	2.8
12	2245.683 5.5706E-005	2.75%	97.22	42.43	INHARMONIC	-3.34%	-0.60%	1.2
2	312.439 4.0965E-005	2.02%	63.07	8.29	INHARMONIC	-19.31%	-5.56%	3.1
3	644.390 2.3227E-005	1.15%	75.61	20.82	INHARMONIC	10.94%	2.44%	3.6
4	686.728 2.1334E-005	1.05%	76.71	21.92	INHARMONIC	-11.33%	-2.64%	4.7

Sound 7	Trumpet - Hall	f Valve – Low F	Range						
NHN		Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes		Diversion (Pitch)	
4	462.214	0.000815516	102.60%	69.85	23.82	LOUDER THAN FUNDAMENTAL	-1.05%		9.9
1		0.000794838	100.00%	46.03	0.00		0.00%		10.0
2		0.000698056	87.82%	57.64	11.60		-2.28%		9.6
3		0.000604132	76.01%	64.79	18.76		-1.51%		4.8
18		0.000372546	46.87%	95.87	49.83		-1.19%		11.9
11		0.000252233	31.73%	87.35	41.31		-1.15%		3.3
g		0.000189771	23.88%	83.85	37.82		-1.28%		11.9
17	1959.157	0.00017974	22.61%	94.86	48.82		-1.31%		10.9
5			21.44%	73.78	27.74		-0.69%		1.8
20		0.000158057	19.89%	97.69	51.65		-1.20%		1.7
13		0.000149158	18.77%	90.20	44.17		-1.38%		6.2
16		0.000146858	18.48%	93.88	47.84		-0.90%		9.9
12	1380.977		15.55%	88.80	42.77		-1.45%		4.8
		0.000107384	13.51%	79.50	33.47		-1.27%		7.5
8		0.000104801	13.19%	81.85	35.82		-1.04%		9.9
10		9.2209E-005	11.60%	85.68	39.65		-1.23%		1.7
15		9.1687E-005	11.54%	92.73	46.69		-1.10%		8.7
11		9.1075E-005	11.46%	88.10	42.07	INHARMONIC	3.25%		4.1
21		7.7029E-005	9.69%	98.37	52.34		-2.10%		2.4
6		5.0246E-005	6.32%	76.79	30.75		-1.54%		4.8
22		3.2046E-005	4.03%	99.35	53.32	INITA PARONIO	-1.11%		3.4
14		2.6378E-005	3.32%	91.98	45.95	INHARMONIC	1.51%		8.0
14		2.3344E-005	2.94%	91.64	45.61	INITA PARONIO	-0.47%		7.6
22	2627.313	1.4096E-005	1.77%	99.94	53.90	INHARMONIC	2.27%	0.39%	3.9

Sound 8	Trumpet - Half Valve - Mid	Range Upper						
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	5 1754.723 0.00519925	7 105.54%	92.95	28.15	LOUDER THAN FUNDAMENTAL	1.65%	0.31%	8.9
	1 345.252 0.0049262	3 100.00%	64.80	0.00		0.00%	0.00%	4.8
	2 703.007 0.00450247	7 91.40%	77.11	12.31		1.81%	0.40%	5.1
	4 1406.413 0.00308652	7 62.65%	89.12	24.32		1.84%	0.36%	5.1
	6 2099.507 0.0017710	4 35.95%	96.05	31.25		1.35%	0.24%	0.1
	7 2454.640 0.00103812	3 21.07%	98.76	33.96		1.57%	0.27%	2.8
	8 2770.663 0.00102820	2 20.87%	100.86	36.05		0.31%	0.05%	4.9
	4 1270.040 0.000187	2 3.80%	87.35	22.55	INHARMONIC	-8.04%	-1.63%	3.4
	5 1879.997 0.00016517	3.35%	94.14	29.34	INHARMONIC	8.91%	1.59%	10.1
	6 2241.840 0.00014951	5 3.04%	97.19	32.39	INHARMONIC	8.22%	1.43%	1.2
	9 2997.193 0.00014439	2.93%	102.22	37.41		-3.54%	-0.61%	6.2
	8 2662.347 0.00014402	7 2.92%	100.17	35.36	INHARMONIC	-3.61%		4.2
10	0 3567.440 0.00014388	2.92%	105.23	40.43		3.33%	0.54%	9.2
	4 1532.360 0.000140			25.80	INHARMONIC	10.96%		6.6
	4 1217.757 0.00012896	2.62%		21.82	INHARMONIC	-11.82%		2.6
	7 2300.383 0.00010870	1 2.21%	97.64	32.83	INHARMONIC	-4.82%	-0.87%	1.6
	5 1587.283 9.6137E-00	5 1.95%	91.21	26.41	INHARMONIC	-8.05%		7.2
1	1 3709.940 9.4509E-00	5 1.92%	105.91	41.11		-2.31%	-0.38%	9.9
	1 475.238 9.3703E-00	5 1.90%	70.33	5.53	INHARMONIC	37.65%	8.54%	10.3
	6 1930.693 6.3837E-00	5 1.30%	94.60	29.80	INHARMONIC	-6.80%	-1.27%	10.6
	2 548,708 4,7832E-00	5 0.97%	72.82	8.02	INHARMONIC	-20.54%	-5.18%	0.8

Sound 9	Trumpet - Half	Valve - High I	Range						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	847.239	0.028272567	100.00%	80.34	0.00		0.00%	0.00%	8.3
2	1694.700	0.015869167	56.13%	92.35	12.00		0.01%	0.00%	8.3
3	2543.870	0.00284891	10.08%	99.38	19.03		0.08%	0.01%	3.4
4	3397.753	0.002321991	8.21%	104.39	24.04		0.26%	0.04%	8.4
2	1785.710	0.000332607	1.18%	93.25	12.91	INHARMONIC	5.38%		9.3
1	1023.133	0.000281966	1.00%	83.61	3.27	INHARMONIC	20.76%		11.6
2	1832.817	0.000273412	0.97%	93.70	13.36	INHARMONIC	8.16%	1.47%	9.7
3	2346.457	0.000265389	0.94%	97.98	17.64	INHARMONIC	-7.68%	-1.39%	2.0
2	2042.513	0.000262391	0.93%	95.58	15.23	INHARMONIC	20.54%	3.50%	11.6
3	2713.327	0.000258159	0.91%	100.49	20.15	INHARMONIC	6.75%	1.14%	4.5
3	2152.813	0.000203242	0.72%	96.49	16.14	INHARMONIC	-15.30%	-2.89%	0.5
3	2761.677	0.000198528	0.70%	100.80	20.46	INHARMONIC	8.65%	1.45%	4.8
2	1969.833	0.000163324	0.58%	94.95	14.61	INHARMONIC	16.25%	2.82%	10.9
3	2226.537	0.000162973	0.58%	97.07	16.73	INHARMONIC	-12.40%	-2.31%	1.1
3	2280.027	0.000156471	0.55%	97.48	17.14	INHARMONIC	-10.30%	-1.89%	1.5
3	2847.037	0.000148158	0.52%	101.33	20.98	INHARMONIC	12.01%	1.98%	5.3
4	3049.347	0.000142006	0.50%	102.52	22.17	INHARMONIC	-10.02%	-1.75%	6.5
2	1343.350	0.000134432	0.48%	88.32	7.98	INHARMONIC	-20.72%	-4.35%	4.3

ound 10	Trumpet – Cup Mute – Lov							
NHN	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz)	Diversion (Pitch)	Pitch Class
7	1153.383 0.0083780		85.68	33.85	LOUDER THAN FUNDAMENTAL	0.92%		1.7
8	1320.240 0.00662654		88.02	36.19	LOUDER THAN FUNDAMENTAL	1.08%		4.0
6	990.171 0.00578181		83.04	31.21	LOUDER THAN FUNDAMENTAL	1.08%		11.0
4	658.305 0.00493206		75.98	24.14	LOUDER THAN FUNDAMENTAL	0.81%		4.0
1	163.260 0.0039991		51.84	0.00		0.00%		3.8
3	495.115 0.0032082		71.04	19.21		1.09%		11.0
5	826.907 0.0031627		79.92	28.09		1.30%		7.9
9	1485.190 0.00308417		90.06	38.22		1.08%		6.1
2	331.848 0.0025644		64.12	12.28		1.63%		4.1
10			91.87	40.03		0.97%		7.9
11			93.52	41.68		0.98%		9.5
13			96.41	44.58		1.00%	0.18%	0.4
14			97.70	45.86		1.00%		1.7
12			95.04	43.21		1.09%		11.0
15			98.90	47.07		1.08%		2.9
6	1055.880 0.00043712		84.15	32.32	INHARMONIC	7.79%		0.2
9	1544.233 0.00032422		90.74	38.90	INHARMONIC	5.10%		6.7
5			81.18	29.34	INHARMONIC	8.93%		9.2
10			92.49	40.65	INHARMONIC	4.68%		8.5
14			96.92	45.08	INHARMONIC	-3.45%		0.9
13			95.57	43.74	INHARMONIC	-3.78%		11.6
15	2369.180 0.00010868	5 2.72%	98.15	46.31	INHARMONIC	-3.26%	-0.58%	2.1

16	2536.897 8.9331E-005	2.23%	99.33	47.49	ndix 5 INHARMONIC	-2.88%	-0.51%	3.3
3	430.389 8.3270E-005	2.08%	68.62	16.78	INHARMONIC	-12.13%	-3.16%	8.6
Sound 11 Tr	rumpet – Cup Mute – Mid							
		Amp Ratio 236.95%	Pitch (MIDI #) 84.98	Interval from Fundamental 19.10	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers 0.49%	ion (Pitch) Pitc 0.10%	h Class 1.0
2	738.396 0.012072633 367.402 0.00959394	125.84% 100.00%	77.96 65.88	12.08 0.00	LOUDER THAN FUNDAMENTAL	0.49% 0.00%	0.11% 0.00%	6.0 5.9
4 11	1474.990 0.009271117 4055.653 0.006425303	96.64% 66.97%	89.94 107.45	24.06 41.57		0.37% 0.35%	0.07% 0.06%	5.9 11.5
10 5	3688.307 0.005185 1844.217 0.00466753	54.04% 48.65%	105.81 93.81	39.93 27.93		0.39% 0.39%	0.06% 0.07%	9.8 9.8
9	3319.197 0.004255133 2213.400 0.00407207	44.35% 42.44%	103.98 96.97	38.10 31.09		0.38% 0.41%	0.06% 0.07%	8.0 1.0
8 7	2950.010 0.00240948 2580.523 0.00082896	25.11% 8.64%	101.94 99.63	36.06 33.75		0.37% 0.34%	0.06% 0.06%	5.9 3.6
10	3758.303 0.00026546 3388.040 0.000165506	2.77% 1.73%	106.13 104.34	40.26 38.46	INHARMONIC INHARMONIC	2.29% 2.46%	0.37% 0.41%	10.1
9 3 11	1212.963 0.000144225 4127.560 0.000143934	1.50% 1.50%	86.56 107.76	20.68 41.88	INHARMONIC INHARMONIC	10.05% 2.13%	1.95% 0.34%	2.6 11.8
	rumpet – Cup Mute – High Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Pitc	h Class
2	1323.577 0.0294317 659.093 0.022061033	133.41% 100.00%	88.07 76.00	12.07 0.00	LOUDER THAN FUNDAMENTAL	0.41% 0.00%	0.08% 0.00%	4.1
6	3970.827 0.007982937 3306.293 0.006611257	36.19% 29.97%	107.09 103.92	31.09 27.92		0.41% 0.33%	0.07% 0.05%	11.1 7.9
3	1982.693 0.006199703 2647.153 0.002352247	28.10% 10.66%	95.06 100.07	19.07 24.07		0.27% 0.41%	0.05% 0.07%	11.1 4.1
7 9	4630.007 0.00244372 5953.537 0.002016943	11.08% 9.14%	109.75 114.10	33.75 38.10		0.35% 0.37%	0.06% 0.06%	1.7 6.1
8 11	5290.867 0.00179761 7276.770 0.001014563	8.15% 4.60%	112.06 117.57	36.06 41.58		0.34% 0.37%	0.05% 0.05%	4.1 9.6
13 10	8600.713 0.000875525 6614.093 0.000518811	3.97% 2.35%	120.47 115.92	44.47 39.92		0.38% 0.35%	0.05% 0.05%	0.5 7.9
12	7989.367 0.000271414 5343.683 0.0002658	1.23% 1.20%	119.19 112.23	43.19 36.23	INHARMONIC	1.01% 1.35%	0.15% 0.21%	11.2 4.2
5	3388.347 0.000221573 3778.360 0.000152256	1.00%	104.34 106.23	28.34 30.23	INHARMONIC INHARMONIC	2.82%	0.46% -0.74%	8.3 10.2
6	3828.957 0.000142865	0.65%	106.46	30.46	INHARMONIC	-3.18%	-0.52%	10.5
Sound 13 Tr	summer Com Mide Badel (•						
	rumpet – Cup Mute – Pedal A Frequency Amplitude 1238.187 0.001286363	Amp Ratio 253.95%	Pitch (MIDI #) 86.91	Interval from Fundamental 41.91	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	ion (Pitch) Pitc 0.46%	h Class 2.9
3 10	337.426 0.001076793 1126.050 0.001020755	212.58% 201.52%	64.40 85.27	19.40 40.26	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	2.22% 2.34%	0.59% 0.47%	4.4 1.3
9	1009.717 0.000952118 900.142 0.000873875	187.97% 172.52%	83.38 81.39	38.38 36.39	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	1.96% 2.26%	0.41% 0.48%	11.4 9.4
4	449.086 0.000769867 671.203 0.0007605	151.99% 150.14%	69.35 76.31	24.35 31.31	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	2.26% 2.04% 1.67%	0.51% 0.38%	9.4 4.3
1 5	110.032 0.000506536	100.00%	45.00	0.00	LOODER THAN FUNDAMENTAL	0.00%	0.00%	9.0
14 7	560.104 0.000460662 1575.820 0.000451147	90.94% 89.07%	73.18 91.09	28.17 46.08		1.81% 2.30%	0.43% 0.43%	1.2 7.1 7.0
13	783.483 0.000448976 1484.870 0.000314105	88.64% 62.01%	78.99 90.06	33.98 45.05		1.72% 3.81%	0.38% 0.72%	6.1
2 16	225.302 0.000168743 1811.783 0.000143198	33.31% 28.27%	57.41 93.50	12.41 48.50		2.38% 2.91%	0.71% 0.53%	9.4 9.5
17 18	1923.837 0.000116533 1996.137 8.9390E-005	23.01% 17.65%	94.54 95.18	49.54 50.17		2.85% 0.79%	0.52% 0.14%	10.5 11.2
19 21 21	2106.527 8.3018E-005 2268.243 7.4961E-005 2322.120 7.2410E-005	16.39% 14.80% 14.30%	96.11 97.39 97.80	51.11 52.39 52.79	INHARMONIC	0.76% -1.84% 0.50%	0.14% -0.33% 0.09%	0.1 1.4 1.8
	2022.120 1.21102 000	11.0070	01.00	02.70		0.0070	0.00%	1.0
	rumpet – Cup Mute – Double Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Divers	ion (Pitch) Pitc	h Class
21 15	1220.940 0.002090253 872.226 0.001804673	584.15% 504.34%	86.67 80.85	53.34 47.52	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.71% 3.72%	0.73% 0.79%	2.7 8.8
22 19	1280.497 0.001687627 1105.743 0.001605003	471.63% 448.54%	87.49 84.95	54.16 51.62	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.82% 3.81%	0.75% 0.77%	3.5 1.0
2 20	117.379 0.00159362 1163.327 0.001500433	445.36% 419.31%	46.12 85.83	12.79 52.50	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	4.69% 3.75%	1.75% 0.75%	10.1 1.8
17 13	990.037 0.001359997 754.923 0.001096382	380.07% 306.40%	83.04 78.35	49.71 45.01	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.88% 3.58%	0.80% 0.78%	11.0 6.3
18 8	1045.883 0.000972531 464.226 0.000905476	271.78% 253.05%	83.99 69.93	50.66 36.60	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.64% 3.51%	0.74% 0.86%	12.0 9.9
23 11	1338.280 0.000883408 639.316 0.000823594	246.88% 230.16%	88.26 75.47	54.93 42.14	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.79% 3.67%	0.73% 0.83%	4.3 3.5
16 7	930.301 0.000803459 408.261 0.000769124	224.54% 214.94%	81.96 67.70	48.63 34.37	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.71% 4.03%	0.78% 1.02%	10.0 7.7
12 25	699.151 0.000763956 1453.747 0.000698757	213.50% 195.28%	77.02 89.69	43.69 56.36	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.93% 3.72%	0.87% 0.71%	5.0 5.7
10 26	581.741 0.000672924 1514.460 0.00058636	188.06% 163.87%	73.83 90.40	40.50 57.07	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.77% 3.90%	0.87% 0.74%	1.8 6.4
27 9	1571.663 0.00055575 525.731 0.000551643	155.31% 154.16%	91.04 72.08	57.71 38.75	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.83% 4.20%	0.72% 1.00%	7.0 0.1
3 6	173.455 0.000531519 346.901 0.000521248	148.54% 145.67%	52.88 64.88	19.55 31.55	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.13% 3.13%	1.02% 0.83%	4.9 4.9
29 14	1686.390 0.000503889 816.834 0.000481517	140.82% 134.57%	92.26 79.71	58.93 46.38	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.73% 4.07%	0.69% 0.87%	8.3 7.7
28 5	1629.463 0.000422455 290.855 0.000386655	118.06% 108.06%	91.67 61.83	58.33 28.50	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	3.81% 3.76%	0.71% 1.04%	7.7 1.8
1 31	56.062 0.000357831 1802.343 0.000335623	100.00% 93.79%	33.33 93.41	0.00 60.08		0.00% 3.71%	0.00% 0.68%	9.3 9.4
33 32	1919.920 0.000335254 1862.517 0.000318249	93.69% 88.94%	94.51 93.98	61.17 60.65		3.78% 3.82%	0.68% 0.70%	10.5 10.0
30 35	1747.100 0.000251522 2037.600 0.000201257	70.29% 56.24%	92.87 95.54	59.54 62.20		3.88% 3.84%	0.71% 0.69%	8.9 11.5
34 24	1980.093 0.000162694 1399.820 0.000113311	45.47% 31.67%	95.04 89.04	61.71 55.70		3.88% 4.04%	0.70% 0.78%	11.0 5.0
4	235.014 0.000101149	28.27%	58.14	24.81		4.80%	1.42%	10.1
	rumpet – Harmon Mute – Ste							
12	2009.457 0.010454233	871.95%	95.29	Interval from Fundamental 42.77	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	-0.26%	11.3
10 11	1675.257 0.009820397 1843.783 0.00617257	819.09% 514.83%	92.15 93.81	39.63 41.29	LOUDER THAN FUNDAMENTAL	-1.36% -1.31%	-0.26% -0.24%	8.1 9.8
13 9	2177.787 0.005599493 1507.257 0.004636587 2343.753 0.00372849	467.03% 386.72% 310.98%	96.69 90.32	44.17 37.80	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.36% -1.39%	-0.25% -0.27% -0.25%	0.7 6.3
14 8	1339.080 0.00246813	310.98% 205.86%	97.96 88.27	45.44 35.75	LOUDER THAN FUNDAMENTAL	-1.43% -1.44%	-0.25% -0.28%	2.0 4.3

				Appe	ndix 5			
16 7	2678.033 0.002356817 1172.977 0.00124532	196.57% 103.87%	100.27 85.98	47.75 33.46	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.45% -1.34%	-0.25% -0.27%	4.3 2.0
1 10	169.839 0.001198947 1739.787 0.000859628	100.00% 71.70%	52.52 92.80	0.00 40.28	INHARMONIC	0.00% 2.44%	0.00% 0.45%	4.5 8.8
10 5	1773.637 0.000834051 838.523 0.000779661	69.57% 65.03%	93.13 80.16	40.61 27.64	INHARMONIC	4.43% -1.26%	0.81% -0.27%	9.1 8.2
12 11	2110.153 0.000689328 1943.767 0.000620328	57.49% 51.74%	96.14 94.72	43.62 42.20	INHARMONIC INHARMONIC	3.54% 4.04%	0.63% 0.73%	0.1 10.7
9 12	1574.890 0.000588955 2074.430 0.000558889	49.12% 46.62%	91.08 95.85	38.56 43.33	INHARMONIC INHARMONIC	3.03% 1.78%	0.57% 0.32%	7.1 11.8
9 15	1609.903 0.000532549 2512.273 0.000532286	44.42% 44.40%	91.46 99.16	38.94 46.64	INHARMONIC spectogram suggested more than	5.32% -1.39%	0.99% -0.24%	7.5 3.2
6 13	1004.797 0.00052437 2278.563 0.00043047	43.74% 35.90%	83.30 97.47	30.78 44.95	35 prominent partials INHARMONIC	-1.40% 3.20%	-0.29% 0.56%	11.3 1.5
16 4	2745.097 0.000304787 668.664 0.000285557	25.42% 23.82%	100.70 76.25	48.18 23.73	INHARMONIC	1.02% -1.57%	0.17% -0.36%	4.7 4.2
16 8	2780.973 0.000260051 1404.623 0.000212507	21.69% 17.72%	100.92 89.10	48.40 36.58	INHARMONIC INHARMONIC	2.34% 3.38%	0.40% 0.65%	4.9 5.1
14 14	2444.707 0.000200446 2411.110 0.000189334	16.72% 15.79%	98.69 98.45	46.17 45.93	INHARMONIC INHARMONIC	2.82% 1.40%	0.49% 0.25%	2.7 2.4
3 2	504.424 0.000172407 334.308 0.000168633	14.38% 14.07%	71.37 64.24	18.85 11.72		-1.00% -1.58%	-0.24% -0.43%	11.4 4.2
15	2577.790 0.000163368	13.63%	99.61	47.09	INHARMONIC	1.19%	0.21%	3.6
Sound 16	Trumpet Harman Muta S	tom Out Middl	lo.					
NHN 6	Trumpet – Harmon Mute – S Frequency Amplitude 2241.667 0.0271346		Pitch (MIDI #) 97.19	Interval from Fundamental 30.95	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diver	rsion (Pitch) Pitc	ch Class
5 10	1866.660 0.0267567 3735.110 0.013729	4655.91% 2388.97%	94.02 106.03	27.78 39.79	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-0.47% -0.42%	-0.09% -0.07%	10.0 10.0
9	3361.733 0.011128933 1493.373 0.010705467	1936.54% 1862.85%	104.20 90.16	37.97 23.92	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-0.42 % -0.41% -0.46%	-0.07% -0.09%	8.2 6.2
8 7	2986.617 0.00952553 2613.347 0.003598353	1657.53% 626.15%	102.16 99.84	35.92 33.61	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-0.46% -0.46%	-0.08% -0.08%	6.2 3.8
12 3	4481.547 0.003398333 1120.020 0.003114107	554.47% 541.88%	109.18 85.18	42.94 18.94	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-0.43% -0.46%	-0.07% -0.09%	1.2 1.2
13 2	4854.663 0.002062353 746.691 0.001349787	358.87% 234.88%	110.57 78.16	44.33 11.92	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-0.46% -0.44% -0.46%	-0.09% -0.07% -0.10%	2.6 6.2
11	4106.650 0.001309977 375.078 0.000574682	227.95% 100.00%	107.67 66.24	41.43 0.00	LOUDER THAN FUNDAMENTAL	-0.47%	-0.10% -0.07% 0.00%	11.7 6.2
10	3804.563 0.000521514 1781.227 0.000445541	90.75% 77.53%	106.35 93.21	40.11 26.97	INHARMONIC INHARMONIC	0.00% 1.43% -5.02%	0.23% -0.95%	10.3 9.2
10	3657.163 0.000387837	67.49% 55.51%	105.66	39.43	INHARMONIC INHARMONIC INHARMONIC	-2.50%	-0.41% 0.48%	9.7
9	2312.357 0.000318984 3430.583 0.000268592 2914.170 0.000268345	46.74% 46.69%	97.73 104.55 101.73	31.49 38.32 35.49	INHARMONIC INHARMONIC	2.75% 1.63% -2.88%	0.27% -0.50%	1.7 8.6 5.7
8 7	3057.683 0.00025585 2684.517 0.000249764	44.52% 43.46%	102.56 100.31	36.33 34.07	INHARMONIC INHARMONIC INHARMONIC	1.90% 2.25%	0.32% 0.38%	6.6 4.3
9 13	3287.320 0.000246914	42.97%	103.82	34.07 37.58 44.58	INHARMONIC INHARMONIC INHARMONIC	-2.62% 1.04%	-0.44%	7.8
6	4926.550 0.000219968 2089.560 0.000207752 1636.373 0.000199822	38.28% 36.15% 34.77%	110.82 95.97 91.74	29.74 25.50	INHARMONIC INHARMONIC INHARMONIC	-7.15% 9.07%	0.16% -1.32% 1.67%	2.8 12.0 7.7
9	3559.863 0.000170251	29.63%	105.19	38.96	INHARMONIC	5.46%	0.88%	9.2
Sound 17 NHN	Trumpet – Harmon Mute – S Frequency Amplitude		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diver	rsion (Pitch) Pitc	ch Class
2	1996.753 0.0405367	2050 240/	05.40					
3 5	3330.340 0.016373567	2656.21% 1072.90%	95.18 104.04	18.99 27.84	<u>all harmonic partials louder</u> than fundamental	-0.18% -0.11%	-0.03% -0.02%	11.2 8.0
5 2 4 8 7	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237	1072.90% 730.21% 498.25% 495.88% 291.61%	104.04 88.17 100.17 112.18 109.86	27.84 11.98 23.98 35.98 33.67		-0.11% -0.13% -0.13% -0.10% -0.11%	-0.02% -0.03% -0.02% -0.02% -0.02%	8.0 4.2 4.2 4.2 1.9
5 2 4 8 7 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611	1072.90% 730.21% 498.25% 495.88% 291.61% 110.04% 100.00%	104.04 88.17 100.17 112.18 109.86 107.19 76.20	27.84 11.98 23.98 35.98 33.67 31.00 0.00	than fundamental	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% 0.00%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% 0.00%	8.0 4.2 4.2 4.2 1.9 11.2 4.2
5 2 4 8 7 6 1 3 3	330.340 0.0116373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00766772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914	1072.90% 730.21% 498.25% 495.88% 291.61% 110.04% 100.00% 24.18% 20.31%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86	than fundamental Inharmonic Inharmonic	-0.11% -0.13% -0.13% -0.10% -0.10% -0.13% 0.00% -15.54% 4.95%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88%	8.0 4.2 4.2 4.2 1.9 11.2 4.2 8.3 0.1
5 2 4 8 7 6 1 3 3 2 2 6	330.340 0.016373567 1331.800 0.011143767 2663.643 0.00766384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.00030914 1643.767 0.000304746 3785.410 0.000232223	1072.90% 730.21% 498.25% 495.88% 291.61% 110.04% 100.00% 24.18% 20.31% 19.97% 15.22%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06	than fundamental INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% 0.00% -15.54% 4.95% 23.26% -5.38%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.89%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3
5 2 4 8 7 6 1 3 3 2 6 3 8 8	3330.340 0.016373667 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.000232223 1788.923 0.000223374 5004.050 0.00021323	1072.90% 730.21% 798.25% 498.88% 291.61% 110.00% 24.18% 20.31% 19.97% 15.22% 14.64% 13.97%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89	than fundamental INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% 23.26% -5.38% -10.57% -6.19%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% -0.88% 4.11% -0.89%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3 9.3 3.1
5 2 4 8 7 6 1 1 3 2 6 6 3 8 5 8 5 8 7 6 8 7 6 8 7 6 8 7 6 8 7 6 8 7 8 8 7 8 8 8 8	330.340 0.016373667 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.000232233 1788.923 0.000223374 5004.050 0.00021225 5052.470 0.000124235	1072.90% 730.21% 498.25% 495.88% 291.61% 110.04% 100.00% 24.18% 20.31% 19.97% 15.22% 14.64% 13.97% 13.90% 12.08%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18	than fundamental INHARMONIC	-0.11% -0.13% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% -23.26% -5.38% -10.57% -6.19% -9.27% -5.28%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% -4.11% -0.89% -2.03% -2.03% -0.99% -1.62% -0.84%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3
5 2 4 8 8 7 6 6 1 1 3 3 2 2 6 3 8 8 5 5 8 6 5 5	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.000232233 1788.923 0.000223374 5004.050 0.00021323 3024.737 0.000212205 5052.470 0.000184338 3729.497 0.000184338 3729.497 0.000180016	1072.90% 730.21% 498.25% 495.88% 291.61% 110.00% 24.18% 20.31% 19.97% 15.22% 14.64% 13.97% 12.08% 11.82%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80	Than fundamental INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% 23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% 3.14%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.89% -1.62% -0.94% -1.13% 0.51%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3 10.0 8.6
5 2 4 8 8 7 7 6 1 1 3 3 2 2 6 3 3 8 8 5 8 8 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 5328.860 0.00765734 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00162611 1689.493 0.000368962 2099.297 0.00030974 1643.767 0.000314234 5785.447 0.00023223 1788.923 0.000223374 5004.050 0.00021323 3024.737 0.000212205 5052.470 0.000184338 3729.497 0.000180424	1072.90% 730.21% 498.25% 495.88% 291.61% 110.04% 100.00% 24.18% 20.31% 15.22% 14.64% 13.97% 13.90% 12.08% 11.82%	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80	Than fundamental INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% -23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.08% -0.07% 0.88% 4.11% -0.89% -2.03% -0.99% -1.62% -0.84% -1.13%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3
5 2 2 4 8 8 7 6 6 1 3 3 3 3 2 6 6 5 6 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914 1643.767 0.00034746 3785.410 0.000232223 1788.923 0.000232237 5004.050 0.00021323 3024.737 0.000212205 5052.470 0.000184324 3438.427 0.000180424 3438.427 0.000180426	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 100.00%. 24.18%. 20.31%. 19.97%. 14.64%. 13.90%. 12.08%. 11.82%. 11.80%. 10.83%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80	Than fundamental INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% 23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% 3.14%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.89% -1.62% -0.94% -1.13% 0.51%	8.0 4.2 4.2 1.9 11.2 4.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3 10.0 8.6
5 2 2 4 8 8 7 6 6 1 3 3 3 3 2 6 6 5 6 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000368962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.000232233 1788.923 0.000223374 5004.050 0.00021323 3024.737 0.000212205 5052.470 0.000184338 3729.497 0.000184338 3729.497 0.000180016	1072.90%. 730.21%. 498.25%. 498.82%. 491.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.66%. 13.99%. 12.08%. 11.80%. 10.83%.	104.04 88.17 100.17 112.18 109.86 107.19 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52	Than fundamental INHARMONIC	-0, 11% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 00% -15, 54% -4, 95% -23, 26% -5, 38% -10, 57% -6, 19% -9, 27% -5, 28% -6, 78% -3, 14% -2, 25%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.89% -1.62% -0.84% -1.13% -0.51% -0.47%	8.0 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3 10.0 8.6 10.7
5 5 2 4 4 8 8 7 7 6 6 1 3 3 3 2 2 6 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 6 5 6 6 5 6 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1889.493 0.000368962 2099.297 0.000309914 1643.767 0.00034746 3785.410 0.00023223 1788.923 0.00023374 5004.050 0.00023323 3024.737 0.000212323 3024.737 0.000212205 5052.470 0.000184328 3729.497 0.000180426 3886.507 0.000180205 Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 1612.500 0.000375316	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.90%. 12.08%. 11.80%. 10.83%. 11.80%. 10.83%. 10.83%. 11.80%. 10.00%. 73.27%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52	Than fundamental INHARMONIC	-0, 11% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 10% -0, 13% -0, 00% -15, 54% -23, 26% -5, 38% -10, 57% -6, 19% -9, 27% -5, 28% -6, 78% -3, 14% -2, 85% Diversion (Hz)	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% -0.88% -4.11% -0.89% -2.03% -1.62% -0.84% -1.13% -0.51% -0.47%	8.0 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7
5 2 4 8 8 7 7 6 6 1 1 3 3 3 2 2 6 6 3 8 8 5 5 6 6 5 6 6 5 6 6 5 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1889.493 0.000389862 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.000232233 1788.923 0.000223374 5004.050 0.000212235 5052.470 0.000184338 3729.497 0.000180434 3729.497 0.000180016 3886.507 0.000180016 3886.507 0.000165209	1072.90%. 730.21%. 498.25%. 498.85%. 495.88%. 291.61%. 110.04%. 20.31%. 24.18%. 29.31%. 15.22%. 14.64%. 13.97%. 12.08%. 11.82%. 10.83%. tem Out – Peda. Amp Ratio 100.00%. 73.27%. 44.96%. 40.56%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52	Than fundamental INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% 4.95% -5.38% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% 3.14% -2.85%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.08% 0.88% 4.11% -0.89% -1.62% -0.84% -1.13% -0.47%	8.0 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3 10.0 8.6 10.7
5 2 4 8 8 7 6 6 1 1 3 3 2 2 6 6 3 8 8 6 5 6 6 5 6 6 5 6 6 5 6 6 6 6 6 6 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1889.493 0.000368962 2099.297 0.000309914 1643.767 0.00034746 3785.410 0.00023222 1788.923 0.00023374 5004.050 0.00021323 3024.737 0.00021323 3024.737 0.000180424 3438.427 0.000180436 3886.507 0.000165209 **Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000237531	1072.90%. 730.21%. 498.25%. 498.25%. 495.88%. 100.00%. 24.18%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.80%. 10.03%. 41.90%. 73.27%. 44.96%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52	THAN FUNDAMENTAL INHARMONIC	-0. 11% -0. 13% -0. 13% -0. 10% -0. 11% -0. 13% -0. 00% -15. 54% -4. 95% -23. 26% -5. 38% -10. 57% -6. 19% -9. 27% -5. 28% -6. 78% -3. 14% -2. 85%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.88% -1.13% -0.99% -1.62% -0.84% -1.13% -0.47%	8.0 4.2 4.2 1.9 11.2 4.2 4.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7
5 5 2 4 4 8 8 7 7 6 6 1 1 1 3 3 2 2 6 6 3 8 8 6 5 6 6 5 6 6 5 6 6 5 6 6 6 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000309914 1643.767 0.000309914 1643.767 0.000304746 3785.410 0.000232233 1788.923 0.000223374 5004.050 0.000212235 5052.470 0.000184338 3729.497 0.000180424 3438.427 0.000180016 3886.507 0.000165209 **Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000230302 1485.670 0.000230332 2088.867 0.000185734 1884.893 0.000184749	1072.90%. 730.21%. 498.25%. 498.25%. 495.88%. 100.00%. 20.31%. 19.97%. 15.22%. 14.64%. 13.90%. 12.08%. 11.82%. 11.82%. 11.83%. 10.83%. tem Out — Peda. Amp Ratio 100.00%. 73.27%. 44.98%. 40.56%. 36.27%. 36.07%. 30.09%. 39.55%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00	INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% 0.00% -15.54% 4.95% 23.26% -5.38% -5.38% -5.28% -6.79% 3.14% -2.85% Diversion (Hz) 0.00% 0.99% 4.88% 0.81% 0.05% 2.31% 0.99%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.89% -1.62% -0.64% -1.13% -0.47% sion (Pitch) Pitc 0.00% 0.19% 0.15% 0.01% 0.01% 0.15%	8.0 4.2 4.2 1.9 11.2 4.2 4.3 0.1 7.8 10.3 3.3 10.0 8.6 10.7
5 5 2 2 4 8 8 7 6 6 6 1 1 3 3 3 3 2 2 6 6 3 8 8 6 6 5 6 6 8 8 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00152611 1689.493 0.000389862 2099.297 0.00030914 1643.767 0.00034746 3785.410 0.000232233 3024.737 0.000212235 5052.470 0.00018323 3024.737 0.000212205 5052.470 0.000184324 3438.427 0.0018046 328.877 0.000185764 184.830 0.000375316 1798.123 0.00023732 185.670 0.000155764 184.833 0.000233032 1485.670 0.000154749 115.330 0.000154749 115.330 0.000154174 1237.577 0.000151417 1361.103 0.000181417	1072.90%. 730.21%. 498.25%. 498.82%. 491.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.82%. 11.80%. 10.83%. tem Out - Peda. Amp Ratio 100.00%. 73.27%. 44.96%. 40.56%. 36.27%. 36.07%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 IB Pitch (MIDI #) 48.91 91.48 93.37 90.07 95.97 94.19 85.10	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19	INHARMONIC	-0, 11% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 11% -0, 13% -0, 13% -0, 13% -10, 15, 54% -10, 57% -6, 19% -9, 27% -5, 28% -6, 78% -3, 14% -2, 85% Diversion (Hz) Diver -0, 0, 0, 0, 0, 99% -0, 99% -0, 18% -0, 19	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% -0.88% -4.11% -0.89% -2.03% -0.99% -1.62% -0.04% -0.13% -0.47% sion (Pitch) Pitc -0.47% sion (Pitch) Pitc -0.47% -0.18%	8.0 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7
5 5 2 4 4 8 8 7 6 6 1 1 3 3 3 3 2 2 6 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760344 5328.860 0.00765742 4662.137 0.004450237 3995.250 0.001679363 666.769 0.001652611 1889.493 0.000389962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.00023223 1788.923 0.000223374 5004.050 0.000223237 5052.470 0.00021323 3024.737 0.000212205 5052.470 0.000184338 3729.497 0.000180424 3438.427 0.00018046 3886.507 0.000165209 Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 122.817 0.000512237 128.5670 0.000375316 1798.123 0.000513239 1485.670 0.00023735 2088.867 0.00023735 2088.867 0.000184749 1115.330 0.000184719 1237.577 0.000184119	1072.90%. 730.21%. 498.25%. 498.25%. 495.88%. 100.00%. 24.18%. 20.31%. 19.97%. 15.22%. 14.64%. 13.90%. 12.08%. 11.82%. 11.82%. 11.83%. 10.00%. 73.27%. 44.96%. 40.56%. 36.27%. 36.07%. 30.09%. 29.56%. 29.56%. 29.56%. 29.56%. 28.83%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87	INHARMONIC	-0.11% -0.13% -0.13% -0.13% -0.11% -0.13% -0.13% -0.0% -15.54% -4.95% -23.26% -5.38% -10.57% -6.19% -9.27% -5.22% -6.78% -3.14% -2.85% Diversion (Hz) Diver 0.00% 0.99% 4.58% 0.81% 0.05% 2.31% 0.99% 0.77% 0.77% 0.75% -0.99%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.88% -1.13% -0.99% -1.62% -0.84% -0.47% -0.47% -0.47% -0.15% -0.18%	8.0 4.2 4.2 4.2 1.9 11.2 4.2 4.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7
5 5 2 2 4 4 8 8 7 7 6 6 1 1 3 3 2 2 6 6 3 8 8 8 6 5 5 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.007607384 5328.860 0.00765772 4662.137 0.004450237 3995.250 0.001659363 666.769 0.00152611 1689.493 0.000389862 2099.297 0.000309914 1643.767 0.000312223 1788.923 0.000223237 5004.050 0.000212235 5052.470 0.000182337 3024.737 0.000212205 5052.470 0.000184324 3438.427 0.00018016 3886.507 0.000165209 Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 1612.500 0.000375376 1798.123 0.000230302 1485.670 0.0000175376 1798.123 0.000230302 1485.670 0.000187349 115.330 0.000184109 1237.577 0.00018410 1237.577 0.000184110 1237.577 0.000184112 1288.777 0.000184112 1288.777 0.000116172 991.064 0.000111036 247.187 0.0001110243	1072.90%. 730.21%. 498.25%. 498.25%. 495.88%. 100.00%. 24.18%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.80%. 100.00%. 73.27%. 44.96%. 40.56%. 40.56%. 36.27%. 36.07%. 36.07%. 29.56%. 28.83%. 22.68%. 21.69%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 ### He	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11	INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% -23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% -3.14% -2.85% Diversion (H2) Diversion (H2) Diversion (H2) 0.00% 0.99% -0.81% 0.05% -0.21% 0.77% 0.77% 0.75% -0.99% 0.87% 0.87%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.00% -3.07% 0.88% 4.11% -0.88% -2.03% -0.99% -1.62% -0.84% -0.47% Ssion (Pitch) Pitc 0.00% 0.19% 0.84% 0.15% 0.15% 0.15% 0.15% 0.15% 0.15% 0.15% 0.15% 0.15% 0.15% 0.18% 0.18% 0.18% 0.18%	8.0 4.2 4.2 4.2 1.9 11.2 4.2 4.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7
5 5 2 2 4 4 8 8 7 6 6 1 1 3 3 2 2 6 6 3 8 8 8 6 6 5 5 6 6 8 8 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00162611 1689.493 0.000369862 2099.297 0.000309914 1643.767 0.000312323 178.8923 0.00023223374 5004.050 0.000213233 3024.737 0.000212235 5052.470 0.00018438 3729.497 0.00180424 3438.427 0.000180424 3438.427 0.000180424 3438.427 0.000180216 122.817 0.00015229 122.817 0.000512229 1612.500 0.00037536 1798.123 0.00023302 1485.670 0.000155764 1884.893 0.000184749 1115.330 0.00018478 1115.330 0.00018478 115.330 0.00018478 115.330 0.00018478 1218.777 0.000116112 991.064 0.000111036 247.187 0.000111024 869.020 9.0774E-0.05 743.260 4.8333E-0.05	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.82%. 11.82%. 11.82%. 10.00%. 73.27%. 44.96%. 40.56%. 36.27%. 36.07%. 28.93%. 22.68%. 21.69%. 19.96%. 17.72%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 ### Pitch (MIDI #) 46.91 91.48 93.37 90.07 94.19 85.10 86.90 88.55 96.77 83.06 59.02 80.78 78.08	27.84 11.98 23.98 35.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17	INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% 4.95% -23.26% -5.38% -10.57% -6.19% -9.27% -5.22% -6.78% 3.14% -2.85% Diversion (Hz) Diver 0.00% 0.99% 4.58% 0.81% 0.05% 2.31% 0.97% 0.65% 0.87% 0.65% 1.08% 0.88%	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.88% -1.13% -0.99% -1.62% -0.44% -0.47% sion (Pitch) Pitch -0.47% sion (Pitch) Pitch -0.47% -0.18% -0.15% -0.15% -0.15% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.19% -0.23% -0.19%	8.0 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.9 3.3 10.0 8.6 10.7 6.1 10.7 6.1 10.2 1.2 1.2 9.4 6.1 1.2 9.4 6.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1
5 5 2 4 4 8 8 7 6 6 1 1 3 3 3 3 2 2 6 6 3 8 8 5 5 6 6 5 6 6 5 6 6 5 6 6 5 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.00162611 1689.493 0.000162611 1689.493 0.000369942 1643.767 0.000394746 1743.767 0.00034746 1743.767 0.00023223 1788.923 0.000223374 5004.050 0.00021323 1788.923 0.000223374 5004.050 0.00021323 1788.923 0.000223374 5004.050 0.000212205 5052.470 0.000180424 3438.427 0.000180424 3438.427 0.000180424 3438.427 0.000180424 1348.483 0.000512229 1612.500 0.000375316 1798.123 0.000230302 1485.670 0.000375316 1798.123 0.000237035 2088.867 0.000185764 1884.893 0.000184749 1115.330 0.000184719 1237.577 0.000116172 991.064 0.00011096 247.187 0.0001012243 869.020 0.0774E-0.05 743.260 4.8333E-0.05 370.656 4.5016E-0.05	1072.90%. 730.21%. 498.25%. 498.88%. 291.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.82%. 11.80%. 10.00%. 73.27%. 44.95%. 40.56%. 36.27%. 36.07%. 28.93%. 22.68%. 21.69%. 19.95%. 17.72%. 88.79%. 87.9%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 IB Pitch (MIDI #) 46.91 91.48 93.37 90.07 94.19 85.10 86.90 88.555 96.77 83.06 59.02 80.78 78.08 66.03 71.12	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22	INHARMONIC	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.11% -0.13% 0.00% -15.54% 4.95% 23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% 3.14% -2.85% Diversion (Hz) Diver 0.00% 0.99% 4.58% 0.81% 0.05% 2.31% 0.99% 0.77% 0.77% 0.77% 0.75% -0.99% 0.87% 0.88% 0.68% 0.68% 0.68% 0.66%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.89% -1.62% -0.84% -0.51% -0.47% sion (Pitch) Pitc -0.47% sion (Pitch) Pitc -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.18% -0.15% -0.15% -0.18% -0.15% -0.16% -0.23% -0.23% -0.09% -0.19% -0.16% -0.30%	8.0 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.0 8.6 10.7 6.4 10.7 6.4 10.7 6.4 10.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1
5 5 2 4 4 8 8 7 6 6 1 3 3 3 2 2 6 6 3 5 6 8 8 6 5 5 6 8 8 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00162611 1689.493 0.000369962 2099.297 0.000309914 1643.767 0.000323223 1788.923 0.00023223374 5004.050 0.000213233 3024.737 0.000212235 5052.470 0.000180424 3438.427 0.000180424 3438.427 0.000180424 3438.427 0.000180424 3438.427 0.000180426 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000237234 185.670 0.000157239 1115.330 0.000184734 1115.330 0.000184734 115.330 0.000184734 115.330 0.000184734 115.330 0.000184734 1288.777 0.000116172 991.064 0.000111096 247.187 0.0001102243 869.020 0.7774E005 743.260 4.8333E005 370.656 4.5016E005 479.408 1.6427E005 615.053 1.5834E005	1072.90%. 730.21%. 498.25%. 498.82%. 491.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 12.08%. 11.82%. 11.82%. 11.82%. 11.82%. 44.96%. 40.56%. 26.27%. 36.07%. 27.44.96%. 21.69%. 21.69%. 22.68%. 21.69%. 22.68%. 21.69%. 33.09%. 33.09%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 IB Pitch (MIDI #) 46.91 91.48 93.37 90.07 94.19 85.10 86.90 88.555 96.77 83.06 59.02 80.78 78.08 66.03 71.12 74.80	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.00% -15.54% -4.95% -2.326% -5.38% -10.57% -6.19% -9.27% -5.28% -6.78% -3.14% -2.85% Diversion (Hz) Diver 0.00% -0.99% -0.81% 0.15% -0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.05% 0.81% 0.06% 0.06% 0.06% 0.06% 0.06%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.89% -2.03% -0.99% -1.62% -0.04% -1.13% -0.11% -0.47% SSION (Pitch) Pitch -1.13% -0.11% -0.47% -1.13% -0.11% -0.47% -1.15% -0.15% -0.15% -0.15% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.18% -0.15% -0.16% -0.16% -0.30% -0.04%	8.0 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.9 3.3 10.0 8.6 10.7 6.1 10.7 6.1 10.2 1.2 9.4 6.1 12.9 4.6 0.8 11.1 11.0 8.6 11.1 11.0 8.6 11.1 11.0 8.6 11.1 11.0 11.0 11.0 11.0 11.0 11.0 11
5 5 2 4 4 8 8 7 6 6 1 1 3 3 3 3 2 2 6 6 3 8 8 5 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 6 5 6 6 6 6 7 6 7	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001629363 666.769 0.00162611 1689.493 0.000369962 2099.297 0.000309914 1643.767 0.000312323 1788.923 0.000223374 5004.050 0.000213233 3024.737 0.000212205 5052.470 0.000180328 3329.497 0.000180424 3438.427 0.000180424 3438.427 0.000180424 3438.427 0.000180212 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000512229 1612.500 0.000375316 1798.123 0.000230302 1485.670 0.000165209 1105.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 115.330 0.000184749 115.330 0.000184749 115.330 0.000184749 115.330 0.000184181 2188.777 0.000116172 991.064 0.000111096 247.187 0.0001012243 869.020 0.7774E-005 743.260 4.8333E-005 370.656 4.5016E-005 370.656 4.5016E-005 497.408 1.6427E-005 615.053 1.5834E-005	1072.90%. 730.21%. 498.25%. 498.88%. 291.61%. 110.04%. 20.31%. 19.97%. 14.64%. 13.97%. 12.08%. 11.82%. 11.82%. 11.80%. 10.00%. 73.27%. 44.95%. 40.56%. 36.27%. 36.07%. 28.93%. 22.68%. 21.69%. 19.96%. 19.96%. 3.21%. 3.09%.	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 IB Pitch (MIDI #) 46.91 91.48 93.37 90.07 95.97 94.19 85.10 86.90 88.555 96.77 83.06 59.02 80.78 78.08 66.03 71.12 74.80	27.84 11.98 23.98 35.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0, 11% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 11% -0, 13% -0, 10% -1, 15, 54% -1, 15	-0.02% -0.03% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.89% -2.03% -0.99% -1.62% -0.04% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.23% -0.15% -0.16% -0.23% -0.04%	8.0 4.2 4.2 4.19 11.2 8.3 0.1 7.8 10.3 9.3 3.1 6.4 3.3 10.0 8.6 10.7 Ch Class 11.1 12.0 0.8 11.1 11.0 8.6 11.1 11.0 8.8 6.1 6.1 6.0 11.1 2.8
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5 5 2 4 4 8 8 7 7 6 6 1 3 3 3 3 2 2 6 6 3 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 6 7 6 7	3330.340 0.016373567 1331.800 0.011143767 2663.643 5228.860 0.00766384 5328.860 0.00766784 4662.137 0.004450237 3995.250 0.001659363 666.769 0.00152611 1889.493 0.000389914 1643.767 0.00039914 1643.767 0.00039174 504.050 0.00023223 1788.923 0.000232374 5004.050 0.00023233 3729.497 0.000180424 3438.427 0.000180436 3789.497 0.000180424 3438.427 0.000180426 122.817 0.000512229 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000512230 1485.670 0.00025735 2088.867 0.000230330 1485.670 0.00023735 2088.867 0.00023735 2088.867 0.000185748 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 115.330 0.00018564 1704.733 0.0001184749 115.330 0.00018564 1844.893 0.000184749 115.330 0.000184109 1237.577 0.000185746 1848.893 0.000185764 1856.860 0.00018566 4.5016-0.05 497.408 1.6427E-0.05 615.053 1.5834E-0.05	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 14.64%. 13.97%. 13.90%. 11.80%. 10.83%. 11.80%. 10.83%. 11.80%. 20.31%. 40.55%. 36.27%. 30.09%. 29.56%. 36.27%. 30.09%. 29.56%. 36.27%. 31.99%. 22.68%. 36.27%. 31.99%. 22.68%. 36.27%. 31.99%. 22.68%. 36.27%. 31.99%. 21.69%. 32.1%. 30.99%. 21.69%. 31.466%. 31.1.34%. 30.9%. 40.55%. 30.9%.	104.04 88.17 100.17 112.18 109.86 107.19 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 ### ### ### ### ### ### ### ### ###	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 41.64 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89 Interval from Fundamental 56.87 57.49 0.00 12.01 56.21	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0.11% -0.13% -0.13% -0.10% -0.11% -0.13% -0.10% -0.11% -0.13% 0.00% -15.54% 4.95% 23.26% -5.38% -10.57% -6.19% -9.27% -5.28% -3.14% -2.85% Diversion (Hz) Diver 0.00% 4.58% 0.81% 0.05% 2.31% 0.15% 0.15% 0.15% 0.16% 0.86% 0.86% 0.63% 1.08% 0.66% 1.25% 0.16%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.06% -0.19% -0.47% -0.15% -0.15% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.118% -0.15% -0.16% -0.20% -0.22% -0.22% -0.22% -0.22% -0.22% -0.00%	8.0 4.2 4.2 4.2 4.1 9 11.2 8.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7 Ch Class 11.1 2.9 4.6 0.8 11.1 12.0 11.2 2.6 0.8 11.1 12.0 11.1 2.8 Ch Class 8.4 9.1 11.6 11.6 17.8
5 5 2 4 4 8 8 7 6 6 1 3 3 3 2 2 6 6 3 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 6 7 7 7 1 5 5 9 10 11 1 18 8 8 2 2 7 7 6 6 3 3 4 5 5 6 6 6 7 7 7 28 8 1 2 2 6 2 5 5 3 1 1	3330.340 0.016373567 1331.800 0.011143767 2663.643 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00162611 1889.493 0.000389914 1643.767 0.00039914 1643.767 0.00039914 1643.767 0.00039174 5004.050 0.00023223 1788.923 0.000232374 5004.050 0.00023223 1788.923 0.00021323 3024.737 0.000212205 5052.470 0.000180424 3438.427 0.000180426 3886.507 0.000165209 **Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000512229 1612.500 0.000375316 1798.123 0.000154749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 1115.330 0.000184749 115.330 0.000184749	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 14.84%. 13.97%. 13.90%. 12.08%. 11.80%. 10.83%. 11.80%. 10.83%. 11.80%. 20.31%. 40.56%. 36.07%. 30.09%. 22.56%. 36.27%. 30.09%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 22.56%. 36.27%. 30.99%. 24.99%. 32.4%. 30.99%. 24.99%. 31.49%. 32.4%. 30.9%. 44.96%. 34.49%. 34.49%. 34.49%. 34.49%. 35.27%. 36.49%. 36.49%. 36.49%. 36.49%. 36.49%. 37.72%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%. 37.41%.	104.04 88.17 100.17 112.18 109.86 107.19 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 ###	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 41.64 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89 Interval from Fundamental 56.87 57.49 0.00 12.01 56.21 55.55 59.30	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0, 11% -0, 13% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -0, 13% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 15, 14% -1, 16% -1	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.06% -3.07% -0.88% -4.11% -0.88% -2.03% -0.98% -1.62% -0.84% -1.13% -0.51% -0.47% Sion (Pitch) Pitc -0.00% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.20% -0.20% -0.20% -0.20% -0.20% -0.20% -0.21% -0.19% -0.21% -0.19%	8.0 4.2 4.2 4.2 4.2 4.9 11.2 8.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7 ch Class 11.1 2.0 10.2 1.1 12.0 10.2 1.1 12.0 11.1 2.8 ch Class 8.4 9.1 11.6 17.8 7.7 11.6 17.8 7.7 11.0 10.9
5 5 2 4 4 8 8 7 6 6 1 1 3 3 3 2 2 6 6 3 5 5 6 6 5 5 6 6 5 5 6 6 5 5 6 6 5 5 6 6 5 6 6 5 6 6 5 6 6 7 6 7	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.00756772 4662.137 0.004450237 3995.250 0.001679363 666.769 0.00162611 1889.493 0.000368962 2099.297 0.000309914 1643.767 0.000304746 3785.410 0.00023222 1788.923 0.00023374 5004.050 0.00023374 5004.050 0.00021323 3729.497 0.000180424 3438.427 0.000180426 3886.507 0.000180426 122.817 0.00015209 **Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.00015229 1612.500 0.000375316 1798.123 0.00015430 1237.577 0.000154109 1237.577 0.000154109 1237.577 0.000154110 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.578 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015410 1237.577 0.00015413 1563.300 0.0016477 63.825 0.001324207 127.703 0.001783163 1766.360 0.00166777 63.825 0.001324207 127.773 0.00116172 1296.1880 0.000981885 1830.397 0.0001143483 1860.3097 0.0001143483 1860.3097 0.0001143483 1860.000981885 1830.397 0.0001143483	1072.90%. 730.21%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 14.84%. 13.97%. 13.90%. 11.82%. 11.80%. 10.00%. 24.418%. 20.32%. 26.60%. 36.07%. 36.07%. 36.07%. 36.07%. 36.27%. 40.55%. 36.27%. 40.55%. 36.27%. 40.55%. 36.27%. 30.99%. 22.68%. 29.56%. 29.56%. 29.56%. 29.56%. 30.99%. 21.69%. 30.99%. 31.46%. 31.21%. 3.21	104.04 88.17 100.17 112.18 109.86 107.19 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 ### ### ### ### ### ### ### ### ### #	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89 Interval from Fundamental 66.87 57.49 0.00 12.01 56.21 55.55 59.30 58.10 60.36	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0, 11% -0, 13% -0, 13% -0, 13% -0, 10% -0, 11% -0, 13% -0, 10% -0, 11% -0, 13% -0, 10% -15, 54% -10, 57% -6, 19% -9, 27% -5, 28% -6, 78% -3, 14% -2, 25% Diversion (Hz)	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.03% -0.11% -0.88% -1.13% -0.99% -1.62% -0.94% -1.13% -0.51% -0.47% Sion (Pitch) Pitc -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.20% -0.20% -0.20% -0.20% -0.20% -0.21% -0.19% -0.21% -0.19% -0.21% -0.15% -0.119% -0.21% -0.15% -0.119% -0.21% -0.21% -0.15% -0.119% -0.21% -0.21% -0.15% -0.21% -0.15% -0.21%	8.0 4.2 4.2 4.2 4.2 1.9 11.2 8.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7 ch Class 11.1 2.8 ch Class 8.4 9.1 11.6 11.6 11.6 17.8 7.1 10.9 9.7 11.9
Sound 18 Sound 18 Sound 18 NHN 1 13 14 12 2 7 15 9 10 11 18 8 8 8 8 6 5 6 Sound 19 NHN 27 22 26 26 25 31 29 33 30 30 30 30	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760384 5328.860 0.007607384 5328.860 0.007650732 4662.137 0.004450237 3995.250 0.001659363 666.769 0.00162611 1689.493 0.000389861 1643.767 0.000309474 63785.410 0.000232223 1788.923 0.0002322337 5004.050 0.000212235 5052.470 0.000180324 3438.427 0.00018036 3729.497 0.000180424 3438.427 0.00018036 3729.497 0.000165209 **Trumpet — Harmon Mute — S Frequency Amplitude 122.817 0.000375316 1798.123 0.000233032 1485.670 0.000175376 1798.123 0.00023330 1485.670 0.000175376 1798.123 0.00023330 1485.670 0.000175376 1798.123 0.00023330 1485.670 0.000175376 1799.1054 0.000185764 1848.483 0.00018474 1361.103 0.00018474 1361.103 0.00018474 1361.103 0.00018474 1361.103 0.00018476 1370.666 4.5016E-005 497.408 1.6427E-005 615.053 1.5834E-005 **Trumpet — Harmon Mute — S Frequency Amplitude 1704.733 0.001783163 1766.360 0.001606777 63.825 0.001732163 1766.360 0.001606777 63.825 0.001324207 127.703 0.001257163 1640.707 0.001151953 1559.773 0.00112322 1961.880 0.00098186 1380.397 0.00098186 1599.773 0.000121322 1961.880 0.00098186 1830.397 0.00098186 1830.397 0.00098186 1830.397 0.00098186 1830.397 0.00098186 1830.397 0.00098186 1830.397 0.00098186 1830.397 0.00098186	1072.90%. 730.21%. 498.25%. 498.25%. 495.88%. 291.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.99%. 11.82%. 11.82%. 11.80%. 100.00%. 73.27%. 44.95%. 40.55%. 36.27%. 36.07%. 36.07%. 37.27%. 38.97%. 38.99%. 38.22.68%. 21.89%. 22.68%. 21.89%. 30.99%. 24.89%. 31.99%. 31.21%. 31.21%. 31.21%. 31.21%. 32.21%. 33.21%. 33.21%. 33.21%. 33.21%. 33.21%. 34.99%. 35.21%. 36.27%. 36	104.04 88.17 100.17 112.18 109.86 107.19 76.20 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 #### #### #### #### #### #### #### ####	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89 Interval from Fundamental 56.87 57.49 0.00 12.01 56.21 55.55 59.30 60.36 58.70 59.81	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0.11% -0.13% -0.13% -0.13% -0.10% -0.11% -0.13% 0.00% -1.15,54% 4.95% 23.26% -5.38% -5.38% -5.28% -6.19% -9.27% -5.22% -6.78% 3.14% -2.85% Diversion (H2) Diver 0.00% 0.99% 4.58% 0.81% 0.05% 2.31% 0.99% 0.77% 0.775% -0.99% 0.63% 1.08% 0.60% 1.25% 0.16% Diversion (H2) Diver -1.08% -1.16% 0.00% -1.13% -0.99% -0.84% -1.11% -1.00% -1.08% -1.10% -1.08% -1.10% -1.06%	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.05% -0.088% 4.11% -0.88% -1.13% -0.99% -1.62% -0.84% -1.13% -0.47% Ssion (Pitch) Pitc -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.18% -0.19% -0.23% -0.04% Sion (Pitch) Pitc -0.23% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.18% -0.19% -0.22% -0.20% -0.21% -0.21% -0.15% -0.15% -0.15% -0.15% -0.18% -0.20% -0.21% -0.15% -0.15% -0.15% -0.18% -0.19% -0.15% -0.21% -0.15% -0.18% -0.19%	8.0 4.2 4.2 4.2 1.9 11.2 4.3 0.1 7.8 10.3 3.1 6.4 3.3 10.0 8.6 10.7 Ch Class 11.1 12.9 4.6 0.8 11.1 2.9 4.6 11.1 2.8 Ch Class 8.1 11.0 11.6 7.1 11.0 11.6 7.1 11.0 11.6 11.1 11.6 11.1 11.6 11.1 11.1
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5 5 2 4 4 8 8 7 7 6 6 1 1 3 3 3 3 2 2 6 6 3 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 5 6 6 6 5 6	3330.340 0.016373567 1331.800 0.011143767 2663.643 0.00760344 5328.860 0.00760344 5328.860 0.00760734 5395.250 0.004450237 3995.250 0.001459263 666.769 0.00152611 6889.493 0.000368962 2099.297 0.000309914 1643.767 0.000312323 1788.923 0.000223237 45004.050 0.000231223 1788.923 0.000223237 5052.470 0.000212225 5052.470 0.00018033 3729.497 0.000180424 3438.427 0.000180424 3438.427 0.00018026 122.817 0.000512229 122.817 0.000512229 122.817 0.000512229 122.817 0.00051223 1485.670 0.00027355 2088.867 0.000185764 1884.893 0.000184749 1115.330 0.000184109 1237.577 0.000114173 1361.103 0.000148181 2188.777 0.00011096 247.187 0.000102033 1237.577 0.000114108 1237.577 0.000114108 1237.577 0.000114109 1237.577 0.000114109 1237.573 0.000184109 1237.573 0.000184109 1237.575 0.000184109 1237.575 0.000184109 1237.575 0.000184109 1237.575 0.000184109 1237.577 0.000111096 247.187 0.00011096 247.187 0.000102243 1869.020 9.0774E-005 497.408 1.6427E-005 615.053 1.5834E-005	1072.90%. 730.21%. 498.25%. 498.88%. 291.61%. 110.04%. 20.31%. 19.97%. 15.22%. 14.64%. 13.97%. 13.97%. 11.80%. 11.80%. 10.00%. 40.56%. 36.27%.	104.04 88.17 100.17 112.18 109.86 107.19 92.29 96.05 91.82 106.26 93.28 111.09 102.37 111.26 106.00 104.59 106.71 IB Pitch (MIDI #) 46.91 91.48 93.37 90.07 95.97 94.19 85.10 86.90 88.55 96.77 83.06 59.02 80.78 78.08 66.03 71.12 74.80 Ide Pedal B Pitch (MIDI #) 92.45 93.06 35.55 47.58 91.13 94.88 93.36 91.78 91.13 94.88 93.68 95.39 94.27 95.39 96.97	27.84 11.98 23.98 35.98 33.67 31.00 0.00 16.10 19.86 15.62 30.06 17.09 34.89 26.18 35.06 29.80 28.40 30.52 Interval from Fundamental 0.00 44.58 46.46 43.16 49.06 47.28 38.19 40.00 41.64 49.87 36.15 12.11 33.87 31.17 19.12 24.22 27.89 Interval from Fundamental 56.87 57.49 0.00 12.01 56.55 59.30 58.10 0.03 58.70 59.81 61.40	INHARMONIC INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC? INHARMONIC?	-0, 11% -0, 13% -0, 13% -0, 11% -0, 13% -0, 11% -0, 13% -0, 10% -0, 11% -0, 13% -0, 13% -0, 13% -0, 13% -0, 15, 54% -15, 54% -15, 54% -15, 54% -10, 57% -6, 19% -5, 22% -6, 78% -3, 14% -2, 25% Diversion (Hz) Diver -0, 00% -1, 25% -0, 23% -1, 16% -1, 16% -1, 16% -1, 108% -1,	-0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.02% -0.09% -3.07% -0.88% -4.11% -0.88% -1.62% -0.84% -1.52% -0.84% -1.52% -0.84% -1.51% -0.47% ssion (Pitch) Pitch 0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.15% -0.16% -0.20% -0.22% -0.00% -0.22% -0.19% -0.22% -0.19% -0.16% -0.21% -0.19% -0.21% -0.19% -0.18% -0.15% -0.18% -0.15% -0.16% -0.20% -0.21% -0.19% -0.16% -0.20% -0.19% -0.16% -0.20% -0.16%	8.0 4.2 4.2 4.2 4.1 9 11.2 4.3 0.1 7.8 10.3 3.1 10.0 8.6 10.7 6h Class 11.1 2.9 6 0.8 11.1 12.0 11.1 2.9 6 0.8 11.1 12.0 11.1 2.9 6 0.8 11.1 11.0 8 8.4 9.1 11.6 7.8 9.7 11.9 9.7 11.9 9.7 11.9 9.7 11.0 10.3 11.1 10.3

				Appe	ndix 5			
20 18 21 4 6 5 19 3 14 16 12 15 17 13 8 10 7 7 9	1134.797 0.00246673 283 0.000246673 251.695 0.000170348 377.748 0.000151185 315.621 0.000148869 1199.020 0.000148369 189.694 0.000104348 885.167 0.0001034 840 0.0001034 1008.870 8.2972E-005 1071.083 6.5661E-005 821.592 4.1310E-005 656.824 4.0510E-005 628.940 3.1262E-005 441.619 2.3846E-005 569.524 2.2385E-005	19.85% 18.63% 16.30% 12.86% 11.24% 11.24% 11.20% 7.88% 7.83% 6.27% 6.05% 5.15% 4.96% 3.12% 3.06% 2.36% 1.80% 1.80%	87.25 85.40 88.11 59.33 66.36 63.25 86.36 54.43 81.10 83.37 78.39 82.27 84.40 79.81 71.40 75.19 69.06 73.47 76.88	51.67 49.83 52.54 23.75 30.78 27.67 50.78 18.86 45.53 47.79 42.82 46.70 48.83 44.23 35.82 39.61 33.49 37.89 41.30		-1.09% -1.22% -0.97% -1.41% -1.36% -1.10% -1.13% -0.93% -0.94% -1.21% -1.16% -1.07% -1.28% -0.98% -1.15% -0.85% -1.20%	-0.22% -0.25% -0.19% -0.41% -0.36% -0.30% -0.23% -0.20% -0.26% -0.25% -0.26% -0.21% -0.25% -0.25% -0.25% -0.27%	3.2 1.4 4.1 11.3 6.4 3.2 2.4 9.1 11.4 10.3 0.4 7.8 11.4 3.2 9.1 1.5 4.9
	Trumpet – Harmon Mute – S	tem Halfway – Lov	N					
NHN 11 12 9 13 10 1 1 8 8 14 15 16 17 2 2 13 10 9 14 5 11 12 13 10 9 14 15 16	2525.720 0.003781127 1894.207 0.02756363 2734.907 0.02756363 2734.907 0.02756363 2734.907 0.002756363 2734.907 0.00185047 1881.350 0.00185527 2946.127 0.00155127 3366.483 0.001288877 3366.483 0.001288877 420.342 0.000839451 420.342 0.000839451 4273.913 0.000562829 1261.017 0.000456037 840.670 0.000568281 1261.017 0.000456037 840.670 0.000383865 1053.613 0.000168679 2422.443 0.000170561 2633.133 0.000119343 2843.420 0.000135382 2212.0050 0.000120759 1999.157 0.000102691 3056.293 8.4597E-005 3264.453 8.2322E-005	Amp Ratio P P 220.97% 208.30% 151.84% 112.16% 100.00% 86.78% 71.00% 57.41% 50.97% 46.24% 38.19% 31.01% 25.12% 9.40% 7.68% 6.65% 4.66% 4.66% 4.54% 3.88%	itch (MIDI #) 97.74 99.25 94.27 100.63 96.09 56.43 92.21 101.92 103.11 104.23 105.27 68.21 75.30 89.93 87.23 80.21 84.12 98.53 99.97 101.30 96.96 95.21 102.55 103.70 104.77	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Notes LOUDER THAN FUNDAMENTAL INHARMONIC	Diversion (Hz) Diversi -1.16% -1.13% -1.13% -1.17% -1.19% -0.00% -1.27% -1.14% -1.16% -1.20% -1.27%	on (Pitch) -0.21% -0.21% -0.21% -0.22% -0.22% -0.22% -0.20% -0.20% -0.20% -0.19% -0.20% -0.19% -0.21% -0.21% -0.21% -0.21% -0.25% -0.21% -0.21% -0.25% -0.21% -0.27% -0.33%	1.7 Class 1.7 3.3 10.3 10.3 10.3 10.6 0.1 8.4 8.2 5.9 7.1 8.2 9.3 8.2 9.3 5.9 3.2 0.1 2.5 4.0 11.2 6.6 6.7 7.8
10	3474.263 7.0432E-000	3.00 %	104.77	40.34	INFIARWONIC	2.0176	0.33%	0.0
NHN 6		Amp Ratio Pi 602.92%	99.26	Interval from Fundamental 31.04	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversi	0.02%	3.3
4 57 8 1 10 9 3 2 5 6 6	2104.130 0.00503100 2948.620 0.00391742 3369.073 0.003442507 420.463 0.00170889 4209.903 0.00140342 3789.440 0.00116593 1261.317 0.00107817 840.901 0.000663102 2307.773 0.00014646 2307.5903 0.000119237	358.92% 294.41% 229.24% 201.45% 100.00% 82.12% 68.23% 63.09% 38.80% 8.57% 6.98% 5.92% 3.80%	92.23 96.09 101.93 104.24 68.21 108.10 106.28 87.23 80.21 97.69 98.19 100.54 101.06	24.02 27.88 33.72 36.03 0.00 39.88 38.06 19.02 12.00 29.48 29.98 32.33 32.84	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	0.11% 0.09% 0.18% 0.18% 0.00% 0.13% 0.14% -0.01% 0.00% 9.77% -5.82% 7.87% -4.77%	0.02% 0.02% 0.03% 0.03% 0.00% 0.02% 0.02% 0.00% 1.68% -1.05% 1.32% -0.83%	8.2 0.1 5.9 8.2 8.2 0.1 10.3 3.2 1.7 2.2 4.5 5.1
0								
Sound 22 NHN 3 2 6 5 4 1 1 3 3 2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	5037.743 0.009362713 4196.127 0.00433653 3366.577 0.00362567 839.538 0.001154013 2595.700 0.000466804 2433.827 0.00029167 5239.463 0.000289107 5114.027 0.000232968 2595.057 0.000206734 5290.407 0.000179144	Amp Ratio P		Interval from Fundamental	Notes all harmonic partials louder than fundamental INHARMONIC	Diversion (Hz) Diversi 0.01% 0.01% 0.01% 0.01% 0.01% 0.00% 0.00% 3.06% -3.37% 4.68% 4.01% 1.52% 7.01% 5.03% 14.14%	on (Pitch) Pitch 0.00% 0.00% 0.00% -0.01% -0.01% 0.00% 0.53% -0.60% 0.86% 0.61% 0.24% 1.18% 0.76%	3.2 8.2 3.2 0.0 8.2 8.2 3.7 2.6 9.0 3.9 3.5 4.4 4.1
	1910.440 0.000109997	14.7376	54.47	14.25	INTERNATIONIC	14.1470	2.4070	10.5
Sound 23	Trumpet – Harmon Mute – S Frequency Amplitude	tem Halfway – Dou	uble Pedal B	Interval from Fundamental	Notes	Diversion (Hz) Diversi	on (Pitch) Pitc	ch Class
2 1 4 6 5 26 3 3 29 10 32 31 8 14 28 22 34 15 21 35 24 13 13 18 22 17 17 17 17 17 17 17 17 17 17 17 17 17	127.126 0.001788687 63.605 0.001613413 248.972 0.000374513 376.061 0.00030233 312.597 0.00025423 187.062 0.000213694 1860.057 0.000123694 1860.057 0.000123694 1860.057 0.000173936 1957.720 0.000123694 499.450 0.000112369 499.450 0.000112401 1807.133 0.000112544 752.859 0.000112625 2131.757 0.000098851 1001.707 6.9517E005 438.481 5.6250E005 2196.450 5.9517E005 1156.840 4.9517E005 1156.840 4.9517E005 1156.840 3.000102526 1156.840 4.9517E005 1156.840 3.000102526 1156.840 5.9517E005 1156.840 6.9517E005 1156.840	110.93% 100.00% 23.21% 18.97% 14.62% 13.91% 13.24% 10.59% 10.34% 8.51% 7.95% 7.22% 6.98% 6.36% 6.31% 4.31% 3.49% 3.35%	47.51 35.52 59.14 66.28 63.08 91.63 54.19 93.96 75.03 95.69 94.84 71.19 80.96 93.46 78.30 96.32 83.24 68.94 96.84 90.23 79.67 85.28 88.77 76.77 84.36 82.16 87.74 86.25	11.99 0.00 23.63 30.76 56.11 18.68 58.44 39.52 60.18 59.33 35.68 45.45 57.94 42.78 60.80 47.73 33.42 61.32 54.72 44.15 49.76 53.25 41.25 48.84 46.64 52.22 50.73	LOUDER THAN FUNDAMENTAL	-0.07% 0.00% -2.14% -1.46% -1.71% -1.69% -1.97% 0.84% -1.98% -1.98% -1.39% -1.39% -1.47% -1.36% -1.43% -1.57% -1.52% -1.34% -1.74% -1.58% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.51% -1.38%	-0.02% -0.02% -0.03% -0.38% -0.38% -0.47% -0.32% -0.15% -0.15% -0.15% -0.30% -0.30% -0.30% -0.33% -0.36% -0.38% -0.32%	11.5 11.5 11.1 6.3 3.1 11.7 10.0 3.0 3.0 3.0 3.0 11.7 10.8 11.2 9.0 9.5 6.3 0.3 11.2 8.9 0.8 6.2 7.7 1.3 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8

Sound 24 NHN	Trumpet – Harmon Mute – S Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diversi	
1 17	206.560 0.006527097 3545.690 0.002390967		55.91 105.13	0.00 49.22		0.00% 0.97%	0.00% 7.9 0.16% 9.1
16 15	3335.423 0.002388367	36.59%	104.07 102.96	48.16 47.05		0.92% 0.98%	0.15% 8.1 0.16% 7.0
2	418.522 0.00216177	33.12%	68.13	12.22		1.31%	0.33% 8.1
18 12		27.28% 22.44%	106.11 99.10	50.21 43.19		0.96% 1.01%	0.16% 10.1 0.18% 3.1
14 7	2920.357 0.00144284	22.11%	101.77 89.77	45.86 33.86		0.99% 0.99%	0.17% 5.8 0.19% 5.8
13	2710.257 0.001380733	21.15%	100.47	44.57		0.93%	0.16% 4.5
8			92.08 75.08	36.17 19.17		0.97% 0.86%	0.18% 8.1 0.20% 3.1
9	1877.100 0.00124999	19.15%	94.12 97.59	38.21		0.97% 0.95%	0.18% 10.1
4	835.227 0.000414172	6.35%	80.10	41.68 24.19		1.09%	0.23% 8.1
5 16		4.92% 4.56%	83.95 103.49	28.04 47.58	INHARMONIC	1.04% -2.37%	0.21% 12.0 -0.40% 7.5
17 18	3427.440 0.000281104		104.54 105.59	48.63 49.68	INHARMONIC INHARMONIC	-2.39% -2.03%	-0.40% 8.5 -0.34% 9.6
6	1249.963 0.000205671	3.15%	87.08	31.17		0.86%	0.17% 3.1
15 10		3.11% 3.09%	102.28 95.94	46.37 40.03	INHARMONIC	-2.92% 0.95%	-0.50% 6.3 0.17% 11.9
19 14		2.63% 2.07%	106.52 101.06	50.61 45.15	INHARMONIC INHARMONIC	-2.07% -3.08%	-0.34% 10.5 -0.53% 5.1
13	2590.973 0.000117014	1.79%	99.70	43.79	INHARMONIC	-3.51%	-0.62% 3.7
12 8			98.24 90.88	42.33 34.97	INHARMONIC INHARMONIC	-3.89% -5.77%	-0.69% 2.2 -1.12% 6.9
10			94.92 63.77	39.01 7.86	INHARMONIC INHARMONIC	-4.79% -21.28%	-0.89% 10.9 -6.10% 3.8
	323.191 4.31472-003	0.0076	03.77	7.00	INTANIONIC	-21.2070	-0.1070
Sound 25	Trumpet – Harmon Mute – S	item In – Mid					
NHN 1	Frequency Amplitude 419.948 0.005178027		Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diversi	
8	3359.477 0.004689543	90.57%	68.19 104.19	36.00		0.00%	0.00% 8.2
12 7			111.21 101.88	43.02 33.69		-0.01% 0.00%	0.00% 3.2 0.00% 5.9
11	4620.990 0.00305294	58.96%	109.71	41.52		0.03%	0.01% 1.7
9	1679.763 0.00270101		106.23 92.19	38.04 24.00		0.00% 0.00%	0.00% 10.2 0.00% 8.2
6	2519.660 0.00265239 839.877 0.00142546		99.21 80.19	31.02 12.00		0.00% 0.00%	0.00% 3.2 0.00% 8.2
10	4199.317 0.000762389	14.72%	108.05	39.86		0.00%	0.00% 0.1
3 8			87.21 104.60	19.02 36.41	INHARMONIC	0.00% 2.37%	0.00% 3.2 0.39% 8.6
Sound 26	Trumpet – Harmon Mute – S	tem In – High	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diversi	on (Bitch) Bitch Class
4		530.83%	104.20	24.01	LOUDER THAN FUNDAMENTAL	0.05%	0.01% 8.2
6		394.87% 258.53%	111.22 99.23	31.02 19.03	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	0.02% 0.07%	0.00% 3.2 0.01% 3.2
2	1679.917 0.00679572	229.61%	92.19 80.20	12.00 0.00	LOUDER THAN FUNDAMENTAL	-0.01% 0.00%	0.00% 8.2 0.00% 8.2
5	4202.080 0.001538873	52.00%	108.07	27.87		0.04%	0.01% 0.1
4		11.57% 7.99%	104.65 110.95	24.46 30.75	INHARMONIC INHARMONIC	2.66% -1.54%	0.44% 8.7 -0.24% 2.9
6	5129.587 0.000235627	7.96%	111.52	31.32	INHARMONIC	1.77%	0.27% 3.5
4	2607.837 0.000200618	6.78%	103.78 99.81	23.59 19.61	INHARMONIC INHARMONIC	-2.36% 3.48%	-0.40% 7.8 0.60% 3.8
3 5	3 2688.540 0.000199233 4512.277 0.000144213		100.33 109.30	20.14 29.10	INHARMONIC INHARMONIC	6.68% 7.43%	1.13% 4.3 1.15% 1.3
	Trumpet – Harmon Mute – S						
NHN 2	Frequency Amplitude 2 127.442 0.00280153	Amp Ratio 416.17%	Pitch (MIDI #) 47.55	Interval from Fundamental 11.99	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Diversi	on (Pitch) Pitch Class -0.01% 11.5
4	251.397 0.001203073	178.72%	59.31 54.42	23.75 18.87	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.41% -0.88%	-0.41% 11.3 -0.28% 6.4
6	377.094 0.000748342	111.17%	66.33	30.77	LOUDER THAN FUNDAMENTAL	-1.41%	-0.37% 6.3
1 8			35.55 71.30	0.00 35.75		0.00% -1.45%	0.00% 11.6 -0.35% 11.3
10 5			75.17 63.14	39.61 27.58		-1.42% -1.61%	-0.33% 3.2 -0.44% 3.1
7	441.173 0.000203557	30.24%	69.05	33.49		-1.13%	-0.28% 9.0
26 12	755.923 0.000172356	25.60%	91.74 78.37	56.18 42.81		-1.28% -1.18%	-0.24% 7.7 -0.26% 6.4
22 14	1386.630 0.000168787	25.07%	88.87 80.99	53.32 45.44		-1.12% -1.42%	-0.22% -0.31% 4.9 9.0
25	1573.027 0.000151309	22.48%	91.06	55.50		-1.29%	-0.25% 7.1
16 24	1508.677 0.000126799	18.84%	83.31 90.33	47.75 54.78		-1.41% -1.39%	-0.29% 11.3 -0.27% 6.3
13 9	818.513 4.5770E-005	6.80%	79.75 73.39	44.19 37.83		-1.23% -1.19%	-0.27% 7.7 -0.28% 1.4
27	1700.797 9.3189E-005	13.84%	92.41	56.85		-1.18%	-0.22% 8.4
28 30	1887.403 8.6248E-005	13.47% 12.81%	93.04 94.21	57.49 58.66		-1.14% -1.30%	-0.21% 9.0 -0.24% 10.2
29 11	1826.533 8.5580E-005	12.71%	93.64	58.09 41.30		-1.19%	-0.22% 9.6 -0.27% 4.9
23	1449.520 7.2219E-005	10.73%	76.86 89.64	54.09		-1.21% -1.13%	-0.22% 5.6
15 18			82.22 85.35	46.66 49.79		-1.26% -1.41%	-0.27% 10.2 -0.29% 1.3
21	1323.440 5.6337E-005	8.37%	88.06 94.80	52.51		-1.14%	-0.22% 4.1
32	2012.810 3.5569E-005	5.28%	95.32	59.25 59.77		-1.16% -1.33%	-0.24% 11.3
17 20			84.39 87.20	48.83 51.65		-1.25% -1.23%	-0.26% 0.4 -0.25% 3.2
36 33	2263.680 3.1830E-005	4.73%	97.36 95.87	61.80 60.31		-1.36% -1.26%	-0.24% 1.4 -0.23% 11.9
Sound 28	Trumpet – Harmon Mute – F		Open Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Diversi	on (Pitch) Pitch Class
4	1484.330 0.006610827	3385.90%	90.05	24.17	LOUDER THAN FUNDAMENTAL	0.99%	0.19% 6.1
5		1510.75% 809.63%	93.88 85.01	28.00 19.13	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	0.79% 0.65%	0.14% 9.9 0.13% 1.0
6	2222.183 0.001506987	771.84%	97.04 78.05	31.16 12.17	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	0.79% 1.00%	0.14% 1.0 0.22% 6.1
9	3340.953 0.000230206	117.91%	104.10	38.22	LOUDER THAN FUNDAMENTAL	1.02%	0.17% 8.1
1	7 2594.890 0.000204656 367.456 0.000195246	100.00%	99.72 65.88	33.84 0.00	LOUDER THAN FUNDAMENTAL sample is short	0.88% 0.00%	0.15% 3.7 0.00% 5.9
5	1987.757 0.000117767	60.32%	95.11	29.23	INHARMONIC	8.19%	1.45% 11.1

				Аррег	ndix 5			
5 8 10 6 4 3 13 9 10 8 20 14 4 6	2974.393 9.8291E-005 3703.327 8.5682E-005 2070.603 7.7070E-005 1289.383 0.000072786 1242.173 5.3891E-005 4823.807 5.3375E-005 359.573 5.0888E-005 3584.387 4.2397E-005 7446.680 0.000032333 5200.933 3.0219E-005 1357.837 2.6069E-005	59.97% 50.34% 43.88% 39.47% 37.28% 27.60% 27.34% 26.06% 21.71% 21.54% 15.56% 15.48% 13.35% 12.91%	92.34 102.08 105.88 95.81 87.61 86.97 110.46 103.67 105.31 101.57 117.97 111.76 88.51 97.93	26.46 36.20 40.00 29.93 21.73 21.09 44.57 37.79 39.43 35.69 52.09 45.88 22.63 32.05	INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-7.81% 1.18% 0.78% -6.08% -12.28% 12.68% 0.98% -1.44% -2.45% -1.77% 1.33% 1.10% -7.62% 6.14%	-1.50% 0.20% 0.13% -1.12% -2.52% 2.43% 0.15% -0.24% -0.41% -0.30% 0.17% -1.53% 1.06%	8.3 6.1 9.9 11.8 3.6 3.0 2.5 7.7 9.3 5.6 10.0 3.8 4.5 1.9
NHN 1 6 4 3 2 7 2 6	1278.113 0.000351825 958.663 0.000339991 638.407 0.000193476 2232.543 5.1130E-005 760.839 4.5392E-005 2033.700 3.7484E-005	Amp Ratio 100.00% 77.70% 54.05% 52.24% 29.73% 7.86% 6.97% 5.76%	ch (MIDI #) 63.56 94.51 87.46 82.48 75.44 97.12 78.48 95.50	Interval from Fundamental 0.00 30.95 23.90 18.92 11.89 33.56 14.92 31.94	Notes INHARMONIC INHARMONIC	0.00% -0.41% -0.56% -0.55% -0.66% -0.74% 18.40% 5.49%	0.00% -0.07% -0.11% -0.11% -0.15% -0.13% 3.87% 0.98%	3.6 10.5 3.5 10.5 3.4 1.1 6.5 11.5
4 6 4 6 2 7 5 5 5 3 4	1826.340 3.5969E-005 1363.203 0.000032185 1769.703 3.1534E-005 575.295 2.8437E-005 2170.740 2.3097E-005 1704.613 2.1886E-005 1481.897 1.88811E-006 1071.127 1.6203E-005	5.58% 5.53% 4.94% 4.84% 4.37% 4.11% 3.55% 3.36% 2.90% 2.49% 2.39%	85.34 93.64 88.58 93.10 73.64 79.71 96.63 92.45 90.02 84.40 89.22	21.78 30.08 25.02 29.54 10.08 16.15 33.07 28.89 26.46 20.85 25.66	INHARMONIC	-12.03% -5.27% 6.07% -8.20% -10.48% -15.26% -3.49% 6.10% -7.76% 11.12% 10.05%	-2.54% -0.99% 1.16% -1.57% -2.54% -3.47% -0.63% 1.12% -1.53% 2.21% 1.89%	1.3 9.6 4.6 9.1 1.6 7.7 0.6 8.4 6.0 0.4 5.2
Caund 20	Towns Of Physics Addition							
NHN 4			ch (MIDI #) 76.48	Interval from Fundamental 23.87	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	-0.17%	4.5
3 5 2 6 1 1 15 9 8 17 16 11 18	506.896 0.012580767 844.890 0.012119267 337.906 0.006182167 1015.540 0.00337817 170.7115 0.003320897 1184.457 0.002531853 2537.980 0.001983073 1522.153 0.001622183 2877.727 0.001476777 2706.767 0.001328027 1864.050 0.00126711 3046.627 0.001186173	378.84% 364.94% 186.16% 116.78% 100.00% 76.24% 59.71% 48.99% 48.55% 44.47% 39.99% 38.16% 35.72%	71.45 80.30 64.43 83.48 52.61 86.14 99.34 90.49 88.43 101.51 100.45 93.99 102.50	18.84 27.69 11.82 30.87 0.00 33.53 46.73 37.88 35.82 48.90 47.84 41.39 49.89	LOUDER THAN FUNDAMENTAL	-1.02% -1.02% -1.03% -0.85% 0.00% -0.88% -0.89% -0.93% -1.04% -0.84% -0.90% -0.74%	-0.25% -0.22% -0.28% -0.18% -0.18% -0.16% -0.16% -0.21% -0.14% -0.14%	11.5 8.3 4.4 11.5 4.6 2.1 3.3 6.5 4.4 5.5 4.5 10.0 6.5
10 14 13 12 19 22 21 1 20 3 3 6	2371.153 0.001126889 2200.150 0.00071261 2029.473 0.000930307 3215.867 0.000559806 3722.000 0.00048586 3553.500 0.000419212 3386.703 0.000352108 566.328 0.000262857 445.104 0.000203349	35.70% 33.93% 21.46% 28.01% 16.86% 14.63% 12.62% 10.60% 7.92% 6.12% 5.63%	92.33 98.16 96.86 95.47 103.44 105.97 105.16 104.33 73.37 69.20 82.46	39.72 45.55 44.26 42.86 50.83 53.36 52.55 51.72 20.76 16.59 29.85	INHARMONIC INHARMONIC INHARMONIC	-0.80% -0.79% -0.86% -0.93% -0.85% -0.90% -0.88% -0.81% 10.58% -13.09% -6.53%	-0.15% -0.14% -0.15% -0.17% -0.14% -0.15% -0.15% -0.13% -0.13% -0.43% -1.40%	8.3 2.2 0.9 11.5 7.4 10.0 9.2 8.3 1.4 9.2 10.5
Sound 31	Trumpet – Plunge Mute – Mia	1						
NHN 2 1 1 3 3 4 7 7 8 6 6 12 5 5 15 17 9 9 18 13 19 21 11 20	Frequency		ch (MIDI #) 76.72 76.72 64.71 83.68 88.67 98.34 100.66 99.54 111.55 113.72 1114.71 114.71 115.64 117.37 106.17	Interval from Fundamental 12.00 0.00 18.96 23.95 33.62 35.94 30.98 42.97 27.83 46.84 49.00 37.99 50.00 44.36 50.93 52.66 41.46 51.82	Notes LOUDER THAN FUNDAMENTAL	0.01% 0.01% 0.00% -0.33% -0.26% -0.38% -0.35% -0.25% -0.27% -0.26% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25% -0.25%	ion (Pitch) 0.00% 0.00% -0.07% -0.05% -0.07% -0.06% -0.05% -0.05% -0.04% -0.04% -0.04% -0.04% -0.04% -0.04% -0.04% -0.04% -0.04% -0.04%	4.7 4.7 11.7 4.7 2.3 4.7 11.7 11.7 11.7 6.7 6.7 6.7 6.7 1.1 7.6 9.4 10.2 8.5
Sound 32	Trumpet – Plunge Mute – Hig							
NHN 1 4 2 100 3 5 15 15 8 9 16 6 13 12 14 4 7 11 11	1434.087 0.007305543 7183.977 0.006294017 2154.023 0.00628385 3592.177 0.005828983 3592.177 0.005828983 0.00737656 6463.860 0.002828477 11494.833 0.002809057 4306.523 0.0024459407 8620.210 0.00188562 5052.833 0.00130763 5025.720 0.001084727 7902.740 0.000188888	100.00% 22.30% 12.99% 11.19% 11.17% 10.46% 6.64% 4.99% 4.33% 4.37% 3.53% 2.19% 1.93%	ch (MIDI#) 77.52 101.49 89.45 117.35 96.50 105.35 124.37 113.48 115.52 125.49 108.49 120.51 123.17 111.17	O.00	Notes	Diversion (Hz) Divers 0.00% -0.18% -0.18% -0.19% -0.25% -0.19% -0.18% -0.21% -0.22% -0.19% -0.28% -0.20% -0.20% -0.20% -0.20% -0.25% -0.19%	0.00% -0.03% -0.07% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.05% -0.03% -0.03% -0.03% -0.03%	5.5 5.5 5.4 0.5 9.4 4.4 5.5 7.5 0.5 1.9 0.5 3.2 11.0
10 14		0.41% 0.38%	117.08 122.98	39.56 45.46	INHARMONIC INHARMONIC	-1.73% -1.31%	-0.26% -0.19%	9.1 3.0
Sound 33 NHN 7	Trumpet – Plunge Mute – Doi Frequency Amplitude 463.747 0.006204097	uble Pedal C Amp Ratio 1379.59% Pite	ch (MIDI #) 69.91	Interval from Fundamental 33.89	Notes LOUDER THAN FUNDAMENTAL	Diversion (Hz) Divers	ion (Pitch) Pitc 0.28%	h Class 9.9

Appendix 5 10 663.758 0.005891617 1310.10% 76.12 40.09 LOUDER THAN FUNDAMENTAL 1.34%	
9	0.30% 4.1 0.35% 2.3 0.40% 0.3 0.35% 7.3 0.27% 5.8 0.39% 0.3 0.24% 7.2 0.33% 10.0 0.30% 11.2 0.26% 1.3 0.31% 8.7 0.28% 3.2 0.25% 5.0 0.01% 0.0 0.22% 2.3 0.22% 2.3 0.22% 2.3 0.22% 2.3 0.22% 2.3 0.22% 5.0 0.22% 3.0 0.22% 2.3 0.22% 5.0 0.22% 3.0 0.22% 2.3 0.22% 5.0 0.22% 3.0 0.22% 2.3 0.22% 3.0 0.22% 3.0 0.22% 3.0 0.24% 3.0 0.25% 1.8 0.00% 0.0 0.27% 8.0 0.02% 4.1 0.24% 5.8 0.25% 1.8
3 507.344 0.007439993 209.71% 71.47 18.83 LOUDER THAN FUNDAMENTAL -1.06% 2 340.006 0.006369553 179.54% 64.54 11.91 LOUDER THAN FUNDAMENTAL -0.54% 6 1016.367 0.005559997 156.72% 83.49 30.86 LOUDER THAN FUNDAMENTAL -0.99% 18.647 0.004100407 115.58% 86.16 33.53 LOUDER THAN FUNDAMENTAL -0.91% 6 10.0000000000000000000000000000000000	Pitch) Pitch Class 0.18% 4.5 0.26% 11.5 0.15% 4.5 0.18% 2.2 0.14% 8.4 0.00% 4.6 0.16% 11.5 0.16% 8.3 0.16% 6.5 0.15% 10.0
8 1409 657 0.000110649 3.12% 89.16 36.53 INHARMONIC 3.09% 10 1748.120 8.4517E-005 2.38% 92.88 40.25 INHARMONIC 2.27%	0.59% 5.2 0.42% 8.9
Sound 35 Trumpet – Plunge Mute Reverse – Mid NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Notes Diversion (Hz) Diversion	
12 4036.633 0.000965622 5.15% 107.37 43.09 0.39% 15 5045.347 0.00081383 4.34% 111.23 46.95 0.39%	0.12% 4.4 0.00% 4.3 0.08% 11.4 0.08% 4.4 0.04% 11.3 0.06% 8.2 0.06% 8.2 0.05% 6.4 0.06% 4.3 0.06% 0.8 0.06% 1.8 0.06% 3.2
14 4708.730 0.000795726 4.24% 110.04 45.75 0.38% 3 947.999 0.000332084 1.77% 82.29 18.01 INHARMONIC -5.69%	0.06% 2.0 1.22% 10.3 1.95% 2.6
4 1213.677 0.000129275 0.69% 86.57 22.28 INHARMONIC -9.44%	1.95% 2.0
Sound 36 Trumpet – Plunge Mute Reverse – Double Pedal C	
NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Notes Diversion (Hz) Diversion	
7	0.51% 10.1 2 4 2 0 3.34% 2.4 0 2.28% 0.3 4.2 0 3.4% 4.2 0 3.4% 10.0 0.55% 2.4 0.55% 7.3 0.41% 7.4 0.59% 0.4 0.40% 0.3 6.6 0.27% 5.8 0.33% 1.4 0.13% 4.0 0.30% 11.2 0.31% 3.3 0.02% 0.1 0.27% 10.6 0.57% 7.4 0.59% 5.8 0.27% 5.8 0.27% 5.8 0.27% 5.8 0.27% 1.0 0.20% 0.1 0.30% 5.8 0.27% 10.6 0.27% 10.6 0.27% 10.6 0.27% 10.6 0.29% 11.2 0.30% 5.8 0.27% 7.4 0.29% 11.2 0.30% 5.8 0.27% 7.3 0.00% 6.6 0.27% 7.3 0.00% 0.1
10	0.51% 10.1 2 4 2 0 3.34% 2.4 0 2.28% 0.3 4.2 0 3.4% 4.2 0 3.4% 10.0 0.55% 2.4 0.55% 7.3 0.41% 7.4 0.59% 0.4 0.40% 0.3 6.6 0.27% 5.8 0.33% 1.4 0.13% 4.0 0.30% 11.2 0.31% 3.3 0.02% 0.1 0.27% 10.6 0.57% 7.4 0.59% 5.8 0.27% 5.8 0.27% 5.8 0.27% 5.8 0.27% 1.0 0.20% 0.1 0.30% 5.8 0.27% 10.6 0.27% 10.6 0.27% 10.6 0.27% 10.6 0.29% 11.2 0.30% 5.8 0.27% 7.4 0.29% 11.2 0.30% 5.8 0.27% 7.3 0.00% 6.6 0.27% 7.3 0.00% 0.1

E 8

				Appe	ndix 5			
3	854.700 1.9888E-005	4.55%	80.49	16.36	INHARMONIC	-14.24%	-3.20%	8.5
5	1661.187 1.4396E-005	3.29%	92.00	27.86		0.01%	0.00%	8.0
6 8	2031.543 1.1958E-005 2716.540 1.1122E-005	2.73% 2.54%	95.48 100.51	31.35 36.38		1.92% 2.21%	0.35% 0.38%	11.5 4.5
4	1320.483 9.9065E-006	2.26%	88.03	23.89		-0.63%	-0.12%	4.0
2 9	658.720 7.9185E-006	1.81%	75.99	11.85	INHARMONIC	-0.86%	-0.20%	4.0
9	2885.033 7.2236E-006 3060.853 6.7575E-006	1.65% 1.54%	101.56 102.58	37.42 38.45	INHARMONIC	-3.51% 2.37%	-0.60% 0.40%	5.6 6.6
8	2512.060 6.0155E-006	1.38%	99.16	35.02	INHARMONIC	-5.48%	-0.97%	3.2
9	2964.027 5.4809E-006	1.25%	102.02	37.89	INHARMONIC	-0.87%	-0.15%	6.0
	Eb Clarinet - Multiphonic 2 Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Div	ersion (Pitch) Pit	ch Class
4	1352.970 0.005609227	446.35%	88.45	23.67	LOUDER THAN FUNDAMENTAL	-1.91%	-0.38%	4.4
5	1697.800 0.001380132	109.82%	92.38	27.60	LOUDER THAN FUNDAMENTAL	-1.53%	-0.29%	8.4
3	344.839 0.00125669 1006.267 0.000944711	100.00% 75.17%	64.78 83.32	0.00 18.54		0.00% -2.73%	0.00% -0.57%	4.8 11.3
8	2705.837 0.000732106	58.26%	100.45	35.66		-1.92%	-0.33%	4.4
6 7	2042.623 0.000339822 2360.570 0.000270866	27.04% 21.55%	95.58 98.08	30.80 33.30		-1.28% -2.21%	-0.23% -0.39%	11.6 2.1
12	4058.730 0.000120389	9.58%	107.47	42.68		-1.92%	-0.31%	11.5
11	3711.547 0.000111698	8.89%	105.92	41.14		-2.15%	-0.35%	9.9
9 10	3050.393 0.000067592 3395.647 5.7896E-005	5.38% 4.61%	102.52 104.38	37.74 39.60		-1.71% -1.53%	-0.29% -0.25%	6.5 8.4
2	689.833 4.3900E-005	3.49%	76.78	12.00		0.02%	0.01%	4.8
14	4748.700 4.1983E-005	3.34%	110.18	45.40	INITIA DIA CANO	-1.64%	-0.26%	2.2
5 13	1576.540 0.000028387 4403.243 2.5319E-005	2.26% 2.01%	91.09 108.88	26.31 44.09	INHARMONIC	-8.56% -1.78%	-1.67% -0.28%	7.1 0.9
15	5093.270 2.3694E-005	1.89%	111.40	46.62		-1.53%	-0.24%	3.4
28 20	9678.637 1.9806E-005 6972.647 1.9310E-005	1.58% 1.54%	122.51 116.83	57.73 52.05		0.24% 1.10%	0.03% 0.16%	2.5 8.8
20	0972.047 1.9310E-005	1.54 70	110.03	52.05		1.10%	0.10%	0.0
Sound 39	Bass Clarinet - Multiphonic 1							
	Frequency Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Notes	Diversion (Hz) Div	ersion (Pitch) Pit	ch Class
3	311.517 0.0546278	139.64%	63.02	18.72	LOUDER THAN FUNDAMENTAL	-1.69%	-0.47%	3.0
11 15	1140.610 0.050913633 1554.320 0.041318067	130.14% 105.62%	85.49 90.85	41.19 46.55	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.83% -1.90%	-0.37% -0.36%	1.5 6.8
10	1035.023 0.0403579	103.16%	83.81	39.51	LOUDER THAN FUNDAMENTAL	-2.01%	-0.42%	11.8
1 5	105.625 0.0391208 517.558 0.0329556	100.00% 84.24%	44.30 71.81	0.00 27.51		0.00% -2.00%	0.00% -0.48%	8.3 11.8
13	1346.627 0.0258904	66.18%	88.37	44.07		-1.93%	-0.38%	4.4
16	1658.300 0.0209995	53.68%	91.97	47.67		-1.88%	-0.36%	8.0
19 25	1969.853 0.019967133 2591.277 0.016817667	51.04% 42.99%	94.95 99.70	50.65 55.40		-1.85% -1.87%	-0.34% -0.33%	11.0 3.7
21	2175.717 0.0162707	41.59%	96.67	52.37		-1.91%	-0.34%	0.7
7	723.133 0.016299543	41.66%	77.60	33.30		-2.20%	-0.49%	5.6
12 6	1245.033 0.013422233 623.067 0.012977633	34.31% 33.17%	87.01 75.02	42.71 30.73		-1.77% -1.69%	-0.35% -0.39%	3.0 3.0
18	1864.210 0.0123776	31.64%	94.00	49.70		-1.95%	-0.36%	10.0
26 14	2694.780 0.011649933 1452.233 0.011145043	29.78% 28.49%	100.38 89.67	56.08 45.37		-1.87% -1.79%	-0.33% -0.35%	4.4 5.7
9	934.934 0.0111441	28.49%	82.05	37.75		-1.65%	-0.35%	10.0
17	1759.387 0.010543723	26.95%	92.99	48.70		-2.02%	-0.38%	9.0
8 28	829.176 0.009357573 2900.477 0.008184023	23.92% 20.92%	79.97 101.65	35.67 57.35		-1.87% -1.93%	-0.41% -0.33%	8.0 5.6
	2073.327 0.007463803	19.08%	95.84	51.54		-1.85%	-0.34%	11.8
20								
24	2487.027 0.006968077	17.81%	98.99	54.69		-1.89%	-0.33%	3.0
24 23	2487.027 0.006968077 2383.990 0.006721407	17.81% 17.18%	98.99 98.25	54.69 53.96		-1.89% -1.87%	-0.33% -0.33%	3.0 2.3
24 23 22 27	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343	17.81% 17.18% 12.85% 5.20%	98.99 98.25 97.48 101.05	54.69 53.96 53.18 56.76		-1.89% -1.87% -1.91% -1.73%	-0.33% -0.33% -0.34% -0.30%	3.0 2.3 1.5 5.1
24 23 22 27 4	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418	17.81% 17.18% 12.85% 5.20% 2.11%	98.99 98.25 97.48 101.05 67.42	54.69 53.96 53.18 56.76 23.13		-1.89% -1.87% -1.91% -1.73% -4.93%	-0.33% -0.33% -0.34% -0.30% -1.28%	3.0 2.3 1.5 5.1 7.4
24 23 22 27	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343	17.81% 17.18% 12.85% 5.20%	98.99 98.25 97.48 101.05	54.69 53.96 53.18 56.76		-1.89% -1.87% -1.91% -1.73%	-0.33% -0.33% -0.34% -0.30%	3.0 2.3 1.5 5.1
24 23 22 27 4	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418	17.81% 17.18% 12.85% 5.20% 2.11%	98.99 98.25 97.48 101.05 67.42	54.69 53.96 53.18 56.76 23.13		-1.89% -1.87% -1.91% -1.73% -4.93%	-0.33% -0.33% -0.34% -0.30% -1.28%	3.0 2.3 1.5 5.1 7.4
24 23 22 27 4 2	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769	17.81% 17.18% 12.85% 5.20% 2.11%	98.99 98.25 97.48 101.05 67.42	54.69 53.96 53.18 56.76 23.13		-1.89% -1.87% -1.91% -1.73% -4.93%	-0.33% -0.33% -0.34% -0.30% -1.28%	3.0 2.3 1.5 5.1 7.4
24 23 22 27 4 2	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude	17.81% 17.18% 12.85% 5.20% 2.11% 1.86%	98.99 98.25 97.48 101.05 67.42 56.05	54.69 53.96 53.18 56.76 23.13 11.75	Notes	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44%	3.0 2.3 1.5 5.1 7.4 8.0
24 23 22 27 4 2 Sound 40 NHN	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01	54.69 53.96 53.18 56.76 23.13 11.75	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0
24 23 22 27 4 2 Sound 40 NHN	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.040188933	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97	54.69 53.96 53.18 56.76 23.13 11.75		-1.89% -1.87% -1.91% -1.73% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.0
24 23 22 27 4 2 2 Sound 40 NHN 4 10 7 6	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.040188933 98.893 0.023130767 841.833 0.010571213	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% Diversion (Hz) Div -12.48% -4.64% -0.01% -0.62%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.0 11.0
24 23 22 27 4 2 Sound 40 NHN 4 10 7 6	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude 494.266 0.090418 1477.337 0.00188933 988.393 0.023130767 841.833 0.10571213 1971.450 0.00535567	17.81% 17.18% 12.85% 5.20% 2.111% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64	LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1.43% -1.43% -1.44% -1.44% -0.62% -0.26%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% Version (Pitch) -3.15% 0.88% 0.00% -0.13% -0.05%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.0 11.0 8.2 11.0
24 23 22 27 4 2 2 Sound 40 NHN 4 10 10 7 6 14 9 13	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.040188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.005003753	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% Diversion (Hz) Div -12.48% -4.64% -0.01% -0.62%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.0 11.0
24 23 22 27 4 2 2 Sound 40 NHN 4 4 0 0 7 6 14 9 13 3 17	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.040188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00553567 1335.917 0.0051077153 1830.177 0.0051077153 1830.177 0.00503753 2465.677 0.004938553	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 4.18	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1.43% Diversion (Hz) Div -12.48% -6.64% -0.01% -0.26% -0.26% -0.28% -0.29% -0.29%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.88% -0.088% -0.03% -0.13% -0.05% -0.05% -0.05%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8
24 23 22 27 4 2 2 Sound 40 NHN 4 10 10 7 6 14 9 13	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.040188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.005003753	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 201.37%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36	LOUDER THAN FUNDAMENTAL	-1.89% -1.81% -1.91% -1.73% -4.93% -1.43% -1.43% Diversion (Hz) Div -12.48% -0.61% -0.62% -0.26% -0.28% -0.29%	-0.33% -0.34% -0.34% -0.34% -0.44% -0.44% -0.44% -0.13% -0.05% -0.05%	3.0 2.3 1.5 5.1 7.4 8.0 ch Class 11.0 6.1 11.0 8.2 11.0 4.2 9.7 2.8 0.2
24 23 22 27 4 2 2 2 2 3 NHN 4 10 7 6 6 14 9 9 13 17 15 3	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude 494.266 0.090418 1477.337 0.040188933 983.93 0.0033130767 1335.917 0.005107153 1830.177 0.00503753 2465.677 0.004938553 2412.380 0.00402486 353.286 0.003433987 2324.500 0.002118977	17.81% 17.18% 12.85% 5.20% 5.20% 1.86% 1.86% 1.86% 4.8	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.62	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% Diversion (H2) Div -12.48% -0.14% -0.02% -0.26% -0.26% -0.29% -0.26% -0.26% -0.26% -0.26% -0.26% -0.29% -0.26% -0.26% -0.29%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.45% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05%	2.3 2.3 1.5 5.1 7.4 8.0 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8
24 23 22 27 4 2 2 Sound 40 8 10 7 6 14 9 13 16 3 16 6 1	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 201.679 0.00082418 208.235 0.000725769 2494.266 4477.337 0.0008246 0.09418 1971.450 0.00535567 1335.917 0.005107153 2465.677 0.00402486 353.286 0.003433987 2324.500 0.002718977 141.187 0.002218977 141.187 0.00218978	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 205.53% 198.74% 161.97% 138.20% 109.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.62 49.92	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8
24 23 22 27 4 2 2 Sound 40 4 10 7 6 14 9 13 13 17 15 16 18 18 18 21	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude 494.266 0.090418 1477.337 0.04188933 988.393 0.023130767 841.833 0.003130767 841.833 0.005170153 1971.450 0.00535567 1335.917 0.0050170153 12465.677 0.004938553 2112.380 0.00043863 353.286 0.003433897 2324.500 0.00218897 141.187 0.002481897 1104.513 0.002481923 1104.513 0.002461922 2959.837 0.00222166	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 205.53% 205.53% 205.53% 189.74% 161.97% 138.20% 100.00% 99.08% 89.41%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.82 49.32 84.93 102.00	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.60% -0.13% -0.05% -0.99% -0.05% -0.47% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 1.3 0.9 6.0
24 23 22 27 4 2 2 2 2 3 NHN 4 4 10 7 6 13 13 13 13 16 18 21 18 21	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude 494.266 0.090418 1477.337 0.040188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00555567 1335.917 0.0051057153 1830.177 0.00503753 2112.380 0.000402486 353.286 0.003433887 2324.500 0.002718977 141.187 0.002484873 1104.513 0.002484873 1104.513 0.002484873	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 4215.53% 4215.53% 201.37% 201.37% 198.74% 161.97% 198.20% 199.42% 100.00% 99.08% 89.41% 81.55%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26	LOUDER THAN FUNDAMENTAL INHARMONIC?	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.5% -0.13% -0.05% -0.03% -0.05% -0.03%	2.3 2.3 1.5 5.1 7.4 8.0 2.1 1.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8 1.3 0.9 6.0 7.6
24 23 22 27 4 2 2 27 4 2 2 27 4 4 2 2 2 27 4 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 1497.337 0.040188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.005107153 1830.177 0.00503753 2412.380 0.003433987 2324.500 0.0024186 353.286 0.003433987 2324.500 0.002718877 141.187 0.002484873 1104.513 0.0022166 1621.793 0.00225102 2606.867 0.00225102	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 201.37% 201.37% 188.74% 161.97% 199.42% 100.00% 99.08% 89.41% 89.41% 46.43%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.92 84.93 102.00 91.58 99.80 93.05	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68	LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 9.7 8.3 0.9 6.0 7,6 3.8 9,1
Sound 40 P	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.04018993 988.393 0.023130767 1335.917 0.005107153 1830.177 0.00503753 2112.380 0.00073585 2112.380 0.00402486 353.286 0.000243867 3232.4500 0.002718977 141.187 0.002448673 1104.513 0.002461922 2959.837 0.00224166 1621.793 0.002026502 2806.867 0.001598416 1765.540 0.001598416 1765.540 0.001598416	17.81% 17.18% 12.85% 5.20% 5.20% 2.11% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 201.37% 188.74% 161.97% 138.20% 109.42% 100.00% 99.08% 89.41% 64.37% 46.437% 46.437%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 97.33	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC?	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.34% -0.44% -0.44% -0.44% -0.44% -0.45% -0.05% -0.65% -0.65% -0.05	3.0 2.3 1.5 5.1 7.4 8.0 11.0 6.0 11.0 8.2 11.0 8.2 11.0 9.7 2.5 1.8 1.3 0.9 6.0 7.8 1.8 1.3 0.9 1.8 1.3
24 23 22 27 4 2 2 27 4 2 2 27 4 2 2 27 4 4 2 2 2 2	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 2494.266 4477.337 0.005107153 1830.177 0.00503753 141.187 0.002484873 1104.513 0.002461922 2559.837 0.00222666 1821.793 0.002026502 2606.867 0.001153665 2260.380 0.001153665 2260.380 0.001153665 2260.380 0.001153665 2260.380 0.0011686489 3100.923 0.0010686489	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 205.53% 205.53% 205.53% 201.37% 188.74% 161.97% 198.20% 199.42% 64.37% 46.437% 46.437% 46.437% 43.73% 43.73%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC?	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05% -0.13% -0.05% -0.05% -0.05% -0.47% -0.05% -0.45% -0.45% -0.03% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 15.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8
24 23 22 27 4 2 2 27 4 2 2 27 4 2 2 2 27 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2402.66 4477.337 0.00082418 0.009418 1477.337 0.005107153 1971.450 0.00535567 1335.917 0.005107153 2465.677 0.004938553 2112.380 0.0024385 2324.500 0.0002718977 141.187 0.002718977 141.187 0.002718977 141.187 0.002486 2259.837 0.0022166 1621.793 0.0022456 1621.793 0.0022456 1621.793 0.0022456 1621.793 0.0022456 2260.886 7 0.001599416 1765.540 0.001153665 2260.380 0.00168689 3100.923 0.001686489 2184.517 0.000961076 2674.427 0.000935151	Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 2115.53% 205.53% 205.53% 213.73% 198.74% 161.97% 138.20% 100.00% 99.08% 43.13% 44.34% 43.73% 44.37% 45.43% 43.73% 45.43% 43.73% 45.43%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 86.20 97.82 49.92 84.93 102.00 91.58 99.80 93.05 99.80 93.05 97.73 102.81	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC?	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05% -0.99% -0.05% -0.99% -0.05% -0.05% -0.03% -0.05% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2
Sound 40 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 2482.245 0.000725769 2482.245 0.000725769 2482.245 0.000725769 2482.245 0.0005107153 1830.177 0.005107153 1830.177 0.005107153 2112.380 0.00002486 353.286 0.00343387 2324.500 0.00271897 141.187 0.002484873 1104.513 0.002484873 1104.513 0.002484873 1104.513 0.002484873 1104.513 0.002484873 1104.513 0.0024682 2605.867 0.001599416 1621.793 0.00202502 2606.867 0.001599416 1765.540 0.001153665 2260.380 0.00168689 2184.517 0.000981076 2674.427 0.000935151 1688.450 0.000158523	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 4215.53% 425.53% 201.37% 205.53% 201.37% 188.74% 161.97% 199.08% 89.08% 89.18% 37.63% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73% 43.73%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.05% -0.06%	2.3 2.3 1.5 5.1 7.4 8.0 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 1.3 6.0 7.6 3.8 9.1 1.3 6.0 7.6 3.8 9.1
24 23 22 27 4 2 2 27 4 2 2 27 4 2 2 2 27 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2402.66 4477.337 0.00082418 0.009418 1477.337 0.005107153 1971.450 0.00535567 1335.917 0.005107153 2465.677 0.004938553 2112.380 0.0024385 2324.500 0.0002718977 141.187 0.002718977 141.187 0.002718977 141.187 0.002486 2259.837 0.0022166 1621.793 0.0022456 1621.793 0.0022456 1621.793 0.0022456 1621.793 0.0022456 2260.886 7 0.001599416 1765.540 0.001153665 2260.380 0.00168689 3100.923 0.001686489 2184.517 0.000961076 2674.427 0.000935151	Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 2115.53% 205.53% 205.53% 213.73% 198.74% 161.97% 138.20% 100.00% 99.08% 43.13% 44.34% 43.73% 44.37% 45.43% 43.73% 45.43% 43.73% 45.43%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 86.20 97.82 49.92 84.93 102.00 91.58 99.80 93.05 99.80 93.05 97.73 102.81	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC?	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43%	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05% -0.99% -0.05% -0.99% -0.05% -0.05% -0.03% -0.05% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.03% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2
24 23 22 27 4 2 2 3 3 4 10 7 6 6 14 9 13 3 16 6 1 8 2 1 11 18 13 16 16 16 16 16 16 16 16 16 16 16 16 16	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.000715365 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.276 0.00085151 1688.450 0.00081852 2776.930 0.000744402 1195.370 0.000857744	Amp Ratio 3638.74%. 1617.34% 1617.34% 1617.34% 1617.34% 1617.34% 1617.34% 1619.74% 161.97% 161	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.82 44.93 102.00 91.58 99.80 93.05 99.80 93.05 97.733 102.81 90.24 92.28 97.83	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 60.92 42.96 29.52 36.98 28.18	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.00% -0.13% -0.05% -0.99% -0.05% -0.47% -0.05% -0.03% -0.05% -0.03% -0.05%	ch Class. 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 13.0 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 9.1 1.3 6.8 0.7 4.2 8.3 9.1 1.3 6.8 9.1 8.3 6.8 9.3 6.8
Sound 40 A 4 4 2 2 2 2 7 4 4 2 2 2 7 4 4 2 2 8 8 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 2412.50 0.000725769 2412.380 0.000725769 2412.380 0.000725769 2412.380 0.000725769 2412.380 0.0005107153 1830.177 0.00503753 2412.380 0.002418933 2456.577 0.004038553 2412.380 0.002718977 141.187 0.002484873 1104.513 0.00246192.259.837 0.00222166 1621.793 0.00202502 2606.867 0.001599416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596416 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.001596418 1765.540 0.000596418 1765.540 0.000596418 1765.540 0.000596418 1765.540 0.000587744 2056.510 0.000577442 2056.510 0.00057744 205	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 3638.74% 1617.34% 425.42% 205.53% 205.53% 201.37% 188.74% 161.97% 199.42% 201.37% 64.37% 43.00% 38.68% 43.73%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 99.80 99.80 99.80 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05% -0.05% -0.05% -0.05% -0.05% -0.47% -0.05% -0.45% -0.03% -0.47% -0.05% -0.68% -0.68% -0.66% -0.66% -0.66% -1.86% -1.15% -0.41%	ch Class 11.0 6.0 11.0 6.0 12.8 11.0 6.0 13.0 14.2 14.2 9.7 2.8 0.2 15.2 18.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 1.3 6.8 6.7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
24 23 22 27 4 2 2 3 3 4 10 7 6 6 14 9 13 3 16 6 1 8 2 1 11 18 13 16 16 16 16 16 16 16 16 16 16 16 16 16	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.000725769 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.000715365 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.260 0.00072576 2482.276 0.00085151 1688.450 0.00081852 2776.930 0.000744402 1195.370 0.000857744	Amp Ratio 3638.74%. 1617.34% 1617.34% 1617.34% 1617.34% 1617.34% 1617.34% 1619.74% 161.97% 161	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.82 44.93 102.00 91.58 99.80 93.05 99.80 93.05 97.733 102.81 90.24 92.28 97.83	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 60.92 42.96 29.52 36.98 28.18	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.00% -0.13% -0.05% -0.99% -0.05% -0.47% -0.05% -0.03% -0.05% -0.03% -0.05%	ch Class. 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 13.0 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 9.1 1.3 6.8 0.7 4.2 8.3 9.1 1.3 6.8 9.1 8.3 6.8 9.3 6.8
Sound 40 4 4 2 3 2 2 2 7 4 4 2 2 2 7 4 4 2 2 2 7 4 4 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.04188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.0051075153 1830.177 0.005003753 2112.380 0.00212166 353.286 0.00343387 2324.500 0.002718973 141.187 0.002484673 1104.513 0.002484673 1104.513 0.00248693 130.923 0.0021666 1621.793 0.00225602 2606.867 0.001599416 1621.793 0.00202502 2606.867 0.001599416 1621.793 0.00202502 2606.867 0.001599416 1621.793 0.00020502 276.930 0.000744402 2898.910 0.000571422 2898.910 0.000574422 2898.910 0.000574422	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 201.37% 138.20% 109.42% 109.42% 109.42% 109.48% 89.41% 43.43% 43.73% 43.00% 43.73% 43.03% 43.73%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.92 49.92 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 95.70 101.64	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 60.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.44% -0.55% -0.05%	3.0 3.0 3.1 5.5 5.1 7.4 8.0 11.0 6.1 11.0 8.2 11.0 8.2 11.0 8.2 11.0 9.7 2.8 1.3 6.0 7.6 3.8 9.1 1.3 6.0 7.6 4.2 9.7 1.3 6.0 7.6 7.6 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9
Sound 40 4 4 2 3 2 2 2 7 4 4 2 2 2 7 4 4 2 2 2 7 4 4 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.0002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 0.090418 1477.337 0.04188933 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.0051075153 1830.177 0.005003753 2112.380 0.00212166 353.286 0.00343387 2324.500 0.002718973 141.187 0.002484673 1104.513 0.002484673 1104.513 0.00248693 130.923 0.0021666 1621.793 0.00225602 2606.867 0.001599416 1621.793 0.00202502 2606.867 0.001599416 1621.793 0.00202502 2606.867 0.001599416 1621.793 0.00020502 276.930 0.000744402 2898.910 0.000571422 2898.910 0.000574422 2898.910 0.000574422	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.42% 215.53% 201.37% 138.20% 109.42% 109.42% 109.42% 109.48% 89.41% 43.43% 43.73% 43.00% 43.73% 43.03% 43.73%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.92 49.92 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 95.70 101.64	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 60.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.44% -0.55% -0.05%	3.0 3.0 3.1 5.5 5.1 7.4 8.0 11.0 6.1 11.0 8.2 11.0 8.2 11.0 8.2 11.0 9.7 2.8 1.3 6.0 7.6 3.8 9.1 1.3 6.0 7.6 4.2 9.7 1.3 6.0 7.6 7.6 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9
24 23 22 27 4 2 Sound 40 8 10 7 6 14 9 13 13 16 18 8 21 11 11 18 13 16 16 22 15 19 12 12 16 18 19 19 19 19 19 19 19 19 19 19 19 19 19	2487.027	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% 2.115% 1.86% 42.15% 42.42% 42.42% 42.42% 43.82% 43.73% 44.12% 43.20% 43.88% 43.73% 43.00% 38.68% 23.65% 23.30% 29.65% 23.00% 18.64% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 93.05 97.73 100.24 92.28 78.84 86.30 77.50 95.70 101.64	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.15% -0.88% -0.00% -0.13% -0.05% -0.99% -0.05% -0.47% -0.05% -0.00% -0.13% -0.06% -0.00% -0.13% -0.06% -0.06% -0.06% -0.05%	2.3 2.3 1.5 5.1 7.4 8.0 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.3 0.9 6.0 7.6 8.3 9.1 1.3 6.8 0.7 4.2 7.6 8.3 8.3 9.1 1.3 6.8 9.1 1.3 6.8 9.1 1.3 6.8 9.1 1.3 6.8 9.1 1.3 6.8 9.1 1.3 6.8 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1 9.1
24 23 22 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 1477.337 0.00503753 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535567 1335.917 0.005107153 1830.177 0.00503753 1830.177 0.00503753 2112.380 0.00218973 2416.8677 0.004938553 2112.380 0.00218973 1104.513 0.00246192 2598.937 0.0022166 1621.793 0.00228602 2508.867 0.0001599416 1765.540 0.001598416 1765.540 0.001598612 2606.867 0.001598416 1765.540 0.001598612 2598.937 0.0022166 1621.793 0.0000681852 376.939 0.00074402 1195.370 0.000981774 2674.427 0.000981571 1688.450 0.000185823 776.939 0.000744402 1195.370 0.000593734 2055.510 0.0005877442 2898.910 0.000463057 2752.680 0.000358201	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 930.86% 425.53% 205.53% 205.53% 201.37% 188.74% 161.97% 138.20% 100.00% 99.08% 84.41% 84.41% 84.43% 43.73% 43.73% 43.73% 43.90% 38.68% 29.94% 29.96% 23.865% 23.00% 18.64% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 95.77 101.64 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 43.89 44.36 49.52 46.84 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 60.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.05%	ch Class 11.0 6.0 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 11.0 5.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.0 7.6 3.8 9.1 1.3 6.0 7.6 4.7
244 23 24 24 24 24 24 24 24 24 24 24 24 24 24	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 2494.266 41477.337 0.0059351 1830.1477 0.005093753 2412.380 0.0035567 1335.917 0.005107153 1830.1477 0.005093753 2412.380 0.00248893 30.023130567 841.813 0.0042486 2324.500 0.0024887 141.187 0.005093753 2412.380 0.002418937 141.187 0.005093753 2412.380 0.002461922 2595.837 0.002218977 141.187 0.005093753 2000000000000000000000000000000000000	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 201.37% 198.74% 161.97% 138.20% 100.00% 99.08% 64.37% 46.43% 43.73% 43.73% 43.73% 43.73% 43.10% 38.68% 23.86% 23.86% 23.00% 18.64%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.62 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.55 95.70 101.64 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.13% -0.88% 0.00% -0.13% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.03% -0.18% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.05% -0.06% -1.86% -1	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 8.1
244 23 22 27 4 2 2 27 4 2 2 27 4 4 2 2 2 27 4 4 2 2 2 2	2487.027 0.006698077 2383.99 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2412.330 0.00225769 2412.330 0.0023333 0.0233337 2465.677 0.0049248 353.286 0.00343387 2324.500 0.00271897 141.187 0.00248473 1104.513 0.00246893 30.0231056 22608.867 0.002166 1621.793 0.0022166 1621.793 0.0022166 1621.793 0.0022560 2608.867 0.001599416 1621.793 0.0022560 2608.867 0.001599416 1621.793 0.00205502 2608.867 0.001599416 1621.793 0.00025502 2608.867 0.0001599416 1621.793 0.000599416 1621.793 0.000035151 1688.450 0.00015823 776.930 0.000744402 2898.910 0.00035151 1688.450 0.000186289 2184.517 0.000961076 2674.427 0.000961076 2674.427 0.000961076 2674.427 0.000961076 2674.427 0.000961076 2674.427 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2674.227 0.000961076 2675.2889.910 0.000358201	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% Amp Ratio 3638.74% 1617.34% 4215.53% 201.37% 205.53% 201.37% 198.74% 161.97% 198.20% 199.42% 100.00% 99.08% 89.41% 100.00% 38.68% 37.63% 43.00% 38.68% 37.63% 29.96% 23.88% 23.65% 23.00% 18.64% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 91.58 99.80 77.50 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 97.33	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08	LOUDER THAN FUNDAMENTAL INHARMONIC INHARMO	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.05% -0.13% -0.05% -0.06% -1.86% -1.86% -1.86% -1.86% -1.06% -1.86% -1.06%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.1 8.1 1.3 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8
244 23 24 24 24 24 24 24 24 24 24 24 24 24 24	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 248266 0.000725769 248266 0.00035567 1335.917 0.005107153 2465.677 0.004038553 2112.380 0.003438573 2112.380 0.00218973 2465.677 0.00402486 353.286 0.003433987 2324.500 0.002718977 141.187 0.00503753 2412.380 0.00218977 141.187 0.00246192 2595.837 0.00221667 141.187 0.00246192 2595.837 0.00221667 1621.793 0.0026502 2506.867 0.00153665 2260.380 0.00163668 2260.380 0.001686489 2184.517 0.00561076 2674.427 0.000935151 1688.450 0.000513565 2265.510 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.000587744 2056.510 0.000571422 2898.910 0.000463057 2752.680 0.000358201	17.81% 17.18% 12.85% 5.20% 2.11% 1.86% 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 201.37% 198.74% 161.97% 138.20% 100.00% 99.08% 64.37% 46.43% 43.73% 43.73% 43.73% 43.73% 43.10% 38.68% 23.86% 23.86% 23.00% 18.64%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.62 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.55 95.70 101.64 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84	LOUDER THAN FUNDAMENTAL INHARMONIC? INHARMONIC	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.13% -0.88% 0.00% -0.13% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.03% -0.18% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.03% -0.05% -0.05% -0.06% -1.86% -1	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 4.2 9.7 2.8 0.2 5.2 1.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 8.1
244 23 24 24 24 24 24 24 24 24 24 24 24 24 24	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.002034343 401.679 0.00082418 208.235 0.000725769 2484.833 0.000725769 2484.833 0.023130767 841.833 0.023130767 841.833 0.023130767 841.833 0.023130767 841.833 0.023130767 841.833 0.02510571213 2465.677 0.005035567 1335.917 0.0050717153 2465.677 0.00503753 2465.677 0.004938553 2112.380 0.00042486 353.286 0.003433987 2324.500 0.002718977 141.187 0.005248692 2595.837 0.0022718977 144.513 0.002461922 2595.837 0.00222166 1621.793 0.002026502 2606.867 0.00159365 22603.867 0.00159365 2605.867 0.00159365 2605.867 0.00159365 276.930 0.000744402 1195.370 0.00059337 718.987 0.000587344 2056.510 0.000571422 2289.810 0.000657442 2598.810 0.000657442 2598.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2289.810 0.00065742 2388.810 0.00065742 2388.810 0.00065742 2398.81	17.81% 17.18% 12.85% 5.20% 5.11% 1.86% 5.20% 2.115% 1.86% 6.38.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 205.53% 18.74% 161.97% 138.20% 100.00% 99.08% 43.14% 43.73% 44.37% 46.43% 43.73% 44.37% 46.43% 43.73% 44.42% 64.37% 44.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 16 65.20 97.52 84.93 102.00 91.58 99.80 93.05 93.05 93.05 93.05 97.55 102.81 96.74 100.24 92.28 78.84 86.30 77.50 95.70 101.64 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 60.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 435.08 43.73 52.32 51.42	LOUDER THAN FUNDAMENTAL INHARMONIC LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.13% -0.88% -0.09% -0.15% -0.99% -0.05% -0.45% -0.05% -0.03% -0.33% -0.05% -0.06% -0.15% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 9.7 2.8 0.2 1.0 9.7 2.8 0.2 1.0 1.0 1.0 1.0 1.0 8.2 1.0 9.0 6.0 6.0 6.0 8.1 8.1 8.1 8.1 8.1 9.6 9.6 3.4 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6 9.6
244 23 22 27 4 2 2 27 4 4 2 2 27 4 4 2 2 2 27 4 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 494.266 41477.337 0.0005107153 1830.177 0.005107153 1830.177 0.0055067 1335.917 0.005107153 1830.177 0.005003753 2112.380 0.002418933 30.23135.917 0.00245895 2260.866 0.003433987 2324.500 0.002718977 141.187 0.002484873 1104.513 0.00246192.2959.837 0.00222502606.867 0.0001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.000599417 1765.930 0.000599418 1765.540 0.000599418 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.00059742 22959.30 0.00068489 2184.517 0.000591742 22959.310 0.000587744 2056.510 0.00057742 2898.910 0.000463057 2752.680 0.000358201 2888.910 0.000463057 2752.680 0.00358201 2898.910 0.002487413 1818.927 0.0258573 981.146 0.024874133 2113.100 0.029387	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 3638.74% 1617.34% 426.42% 205.53% 205.53% 201.37% 188.74% 161.97% 138.20% 100.00% 90.08% 84.41% 84.41% 84.41% 84.42% Amp Ratio 516.87% 23.88% 23.65% 23.00% 18.64% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.20 91.58 99.80 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 101.64 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 60.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 37.20 32.64 45.92	LOUDER THAN FUNDAMENTAL INHARMONIC INHARMO	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.13% -0.44% -0.13% -0.05%	ch Class 11.0 6.0 11.0 6.0 11.0 6.0 12.8 11.0 6.0 13.0 14.2 17.0 6.0 18.2 18.3 18.3 18.3 18.3 18.3 18.3 18.3 18.3
244 23 22 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 2 2	2487.027 0.006968077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 1477.337 0.005093733 988.393 0.023130767 841.833 0.010571213 1871.450 0.0055567 1335.917 0.005107153 1830.177 0.005003753 2412.380 0.002139573 2412.380 0.002189373 141.187 0.002484873 1104.513 0.002461922 2559.837 0.00221666 1621.793 0.002026502 2606.867 0.001598416 1765.540 0.001598416 1765.540 0.001598416 1765.540 0.001598416 1765.540 0.001598416 1765.540 0.001598616 1821.793 0.0006818523 176.930 0.000744402 1795.370 0.000693733 178.987 0.000587744 2055.510 0.000587744 2055.510 0.000587744 2055.510 0.000587744 2055.510 0.000587744 2055.510 0.000587741 22898.910 0.000463057 2752.680 0.000358201	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 5.20% 2.111% 1.86% 3638.74% 1617.34% 930.86% 425.53% 205.53% 205.53% 201.37% 188.74% 161.97% 138.20% 100.00% 90.08% 84.41% 84.437% 46.437% 46.437% 46.437% 46.437% 46.438% 23.85% 23.00% 18.64% 14.42%	98. 99 98. 25 97. 48 101.05 67. 42 56. 05 Pitch (MIDI #) 71.01 89. 97 83. 01 80. 23 94. 96 88. 23 93. 68 98. 84 96. 16 65. 20 97. 82 49. 32 84. 93 102. 81 96. 74 100. 24 92. 28 78. 84 86. 30 77. 50 97. 33 102. 81 96. 74 100. 74 Pitch (MIDI #) 80. 11 92. 09 85. 33 95. 75 101. 64 100. 74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 63.48 47.42 60.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 31.20 32.64 45.92 39.07 0.00	LOUDER THAN FUNDAMENTAL INHARMONIC LOUDER THAN FUNDAMENTAL	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.88% -0.05%	ch Class 11.0 6.0 11.0 6.0 11.0 6.0 12.8 11.0 6.0 13.0 14.2 14.2 9.7 2.8 0.2 15.2 18.8 1.3 0.9 6.0 7.6 3.8 9.1 1.3 6.9 6.0 7.6 3.8 1.3 6.9 7.6 4.7 4.2 8.3 6.8 7 5.6 4.7
244 23 24 24 24 24 24 24 24 24 24 24 24 24 24	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00034343 401.679 0.00082418 2082.53 0.000725769 2462.60 0.00075742 2462.60 0.00075742 2462.60 0.00075742 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757440 2462.60 0.000757443 2462.60 0.000756833 1818.927 0.00058774 22698.91 0.0004574133 2113.10 0.002916533 148.950 0.0007346357 2462.60 0.000565833 148.950 0.00053689 0.00053689 2462.60 0.000565833 148.950 0.00053689 0.00053	17.81% 17.18% 12.85% 5.20% 5.20% 2.11% 1.86% 5.21% 6.3638.74% 6.17.34% 930.86% 425.42% 930.86% 425.53% 205.53% 205.53% 180.74% 138.20% 109.08% 329.42% 100.00% 99.08% 33.43% 343.73% 43.73% 43.30% 43.73% 43.294% 32.94% 32.94% 32.94% 33.63% 32.94% 34.73% 44.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 65.20 97.82 44.93 102.00 91.58 99.80 93.05 97.33 102.81 90.94 90.96 86.30 77.50 95.70 101.64 100.74 Pitch (MIDI #) 80.11 92.09 85.33 93.57 87.45 88.98 96.17 89.92 97.33	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 33.69 33.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 37.20 32.64 45.92 39.07 0.00 47.08	LOUDER THAN FUNDAMENTAL INHARMONIC INH	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.15% -0.88% -0.00% -0.13% -0.05% -0.95% -0.47% -0.05%	ch Class 11.0 6.0 11.0 8.2 11.0 4.2 9.7 2.8 0.2 13.0 6.0 7.6 8.1 1.3 6.8 0.7 4.2 8.3 1.3 6.8 0.7 4.2 8.3 1.7 5.5 1.7 5.6 4.7
244 23 24 24 24 24 24 25 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000725769 2402.60 0.000718973 2405.677 0.00593567 2412.380 0.000718973 2405.677 0.0059358 2412.380 0.0007484873 1104.513 0.00246192 2595.837 0.00221667 141.187 0.00544873 1104.513 0.00246192 2595.837 0.00221667 142.187 0.00091076 1621.793 0.00026502 2506.867 0.00159416 1765.540 0.00153665 2260.380 0.00061056 1621.793 0.00026502 2506.867 0.00159416 1765.540 0.00153665 2260.380 0.000686489 2184.517 0.000961076 2674.427 0.000935151 1688.450 0.00061056 2674.427 0.000935151 1688.450 0.00068053 776.930 0.00074440 1195.370 0.00059339 718.987 0.000587744 2056.510 0.00059339 718.987 0.000587744 2056.510 0.000571422 2898.910 0.000463057 2752.680 0.000358201 242.610 0.000571422 2898.910 0.000463057 2752.680 0.000358201 242.610 0.000571422 2898.910 0.000463057 2752.680 0.000571422 2898.910 0.000463057 2752.680 0.000358201 242.610 0.025973 1422.610 0.025973 1422.610 0.0259573 1422.610 0.0259573 1422.610 0.0259573 1422.610 0.0259573 1422.610 0.00258593 148.950 0.015034967 2260.260 0.015034967 2260.260 0.015034967 2260.260 0.015034967 2260.260 0.015034967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.01154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.001154967 2260.260 0.0013641633 21656.933 0.00115496	17.81% 17.18% 12.85% 5.20% 5.21% 1.86% 5.20% 2.11% 1.86% 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 205.53% 213.73% 198.74% 161.97% 138.20% 199.42% 214.53% 244,43% 243.00% 38.68% 23.04% 23.03% 43.00% 38.68% 23.04% 43.16,43% 43.173% 43.10% 43.16,44% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.00 91.58 99.80 93.05 97.33 102.81 96.74 100.24 92.28 78.84 86.30 77.50 95.70 101.64 100.74 Pitch (MIDI #) 80.11 92.09 85.33 93.57 87.45 82.88 96.17 89.32 84.93	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 37.20 32.64 45.92 39.07 0.00 47.08 44.67	LOUDER THAN FUNDAMENTAL INHARMONIC INH	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.13% -0.13% -0.05% -	ch Class 11.0 6.0 11.0 8.2 11.0 6.0 12.2 13.0 14.2 9.7 2.8 0.2 15.2 18.3 0.9 6.0 7.6 3.8 9.1 1.3 6.8 0.7 4.2 8.3 6.8 9.1 1.3 6.8 0.7 4.2 8.1 1.3 6.8 0.7 4.2 8.1 1.3 6.8 0.7 4.2 8.1 1.3 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.7 6.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9
244 23 24 24 24 24 24 25 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 27 4 2 20 20 20 20 20 20 20 20 20 20 20 20 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency Amplitude 494.266 0.09418 1971.450 0.00535567 1335.917 0.005107153 2465.677 0.004938553 2112.380 0.0042486 2324.500 0.00218977 141.187 0.00503753 2412.380 0.00218977 141.187 0.00246192 2959.837 0.00221667 612.1793 0.00226502 2508.687 0.00153665 2260.380 0.001153665 2260.380 0.001153665 2260.380 0.00166489 2184.517 0.000561075 2674.427 0.000935151 6168.450 0.000513567 1688.450 0.000513567 1688.450 0.00051357 76.930 0.00074440 1195.370 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.00059339 718.987 0.000587744 2056.510 0.000571422 2898.910 0.000463057 2752.680 0.000358201	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 5.20% 2.111% 1.86% 3638.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 205.53% 198.74% 161.97% 138.20% 100.00% 99.08% 43.10% 38.68% 43.30% 32.94% 43.30% 38.68% 23.94% 44.42% Amp Ratio 516.87% 29.96% 23.88% 16.55% 23.00% 18.64% 172.65% 183.96% 172.65% 183.60% 172.65% 183.60% 172.65%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 98.84 96.16 65.20 97.82 84.93 102.00 91.58 99.80 93.05 93.05 93.73 102.81 96.74 100.24 92.28 49.32 102.00 91.58 99.80 93.05 97.52 49.32 84.93 102.00 91.58 99.80 93.05 97.62 49.32 84.93 102.00 91.58 99.80 93.05 97.62 89.80 93.05 97.62 89.80 93.05 96.74 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 84.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.33 37.20 32.64 45.92 39.07 0.00 47.08 44.67 26.51 36.53	LOUDER THAN FUNDAMENTAL INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC INHARMONIC LOUDER THAN FUNDAMENTAL Significant diversion makes it	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.88% -0.05% -0.99% -0.05% -0.99% -0.05% -0.05% -0.07% -0.05% -0.01% -0.05% -0.03% -0.05% -0.06% -1.15% -0.38% -0.38% -0.38% -0.38% -0.32% -0.95% -1.25% -0.24% -0.88% -0.00% -0.21% -0.28% -1.74% -0.88% -0.00% -0.21% -0.28% -1.74% -0.88% -0.00% -0.21% -0.28% -1.74% -0.61%	ch Class 11.0 6.0 11.0 8.2 11.0 6.0 12.2 13.0 14.2 9.7 2.8 0.2 14.0 9.7 2.8 0.2 14.0 6.0 6.0 15.0 4.2 9.7 2.8 0.2 11.0 6.0 4.2 9.7 2.8 0.2 11.0 6.0 7 4.2 8.1 1.3 6.8 9.1 1.3 6.8 6.8 7 4.2 8.1 1.3 6.8 6.8 1.3 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8 6.8
244 23 22 27 4 2 2 27 4 4 2 2 27 4 4 2 2 2 27 4 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 1477.337 0.00503763 988.393 0.023130767 841.833 0.010571213 1971.450 0.00535667 1335.917 0.005107153 1830.177 0.005003753 2412.380 0.002438953 2465.677 0.004938553 2412.380 0.002418933 100.9223606867 0.00424867 141.187 0.002484873 1104.513 0.002461922 2606.867 0.00424866 1621.793 0.00226502 2606.867 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.001599416 1765.540 0.000597542 2959.837 0.00222502 2606.867 0.000484873 110.930 0.00061076 1765.540 0.0001599416 1765.540 0.0001599416 1765.540 0.0001599416 1765.540 0.00057142 22959.837 0.00226502 2606.867 0.000571422 2898.910 0.000643057 2752.680 0.000358201	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 3638.74% 1617.34% 930.86% 425.53% 205.53% 201.37% 188.74% 161.97% 199.42% 100.00% 99.08% 89.41% 81.55% 64.37% 46.43% 43.00% 38.68% 37.63% 32.94% 29.96% 23.88% 23.05% 18.64% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 93.68 98.84 96.16 65.20 97.82 49.32 84.93 102.20 91.58 99.80 97.33 102.81 96.74 100.24 92.28 78.84 100.24 92.28 78.84 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 63.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 37.20 32.64 45.92 39.07 0.00 47.08 44.67 26.51 36.53 49.20	LOUDER THAN FUNDAMENTAL INHARMONIC INH	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.44% -0.44% -0.45% -0.13% -0.05	ch Class 11.0 6.0 11.0 6.0 11.0 6.0 12.8 12.8 13.0 99 60 76 8.3 1.3 0.9 60 76 8.4 7 4.2 8.3 6.5 1.7 5.6 4.7
244 23 24 24 24 25 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 2 2	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00203434 401.679 0.00082418 208.235 0.000725769 Bass Clarinet - Multiphonic 2 Frequency 494.266 1477.337 0.005107153 1830.177 0.005107153 141.187 0.00246192 2598.937 0.00222166 1621.793 0.0005107163 176.930 0.0005107164 2674.427 0.000961076 2674.427 0.000961076 2674.427 0.000961076 277.267 0.00587744 2050.510 0.00057742 2898.910 0.000463057 2752.680 0.00057422 2898.910 0.000463057 2752.680 0.00057422 2898.910 0.000463057 2752.680 0.00057422 2898.910 0.000463057 2752.680 0.00057422 2898.910 0.000463057 2752.680 0.00058743 2113.100 0.0208379 1422.610 0.0020165833 1818.927 0.0258573 981.146 0.024874133 1818.927 0.0258573 981.146 0.024874133 1818.927 0.0258573 981.146 0.000687473 2213.113 0.0078199 424.1477 0.005488023	17.81% 17.18% 12.85% 5.20% 5.21% 1.86% 5.20% 2.11% 1.86% 3638.74% 1617.34% 425.42% 205.53% 205.53% 205.53% 189.74% 161.97% 138.20% 100.00% 90.08% 84.41% 84.43% 43.73% 43.73% 43.73% 43.88% 23.65% 23.00% 18.64% 14.42%	98. 99 98. 25 97. 48 101. 05 67. 42 56. 05 Pitch (MIDI #) 71. 01 89. 97 83. 01 80. 23 94. 96 88. 23 93. 68 98. 84 96. 16 65. 20 97. 82 49. 32 84. 93 102. 00 91. 58 99. 80 97. 33 102. 81 96. 74 100. 24 92. 28 78. 84 86. 30 77. 50 97. 33 102. 81 96. 74 100. 74 Pitch (MIDI #) 80. 11 92. 09 95. 33 95. 37 101. 64 100. 74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 50.48 43.73 48.01 63.48 47.42 62.95 23.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 35.08 43.32 37.20 32.64 45.92 39.07 0.00 47.08 44.67 26.51 36.53 49.20 46.72 18.81	LOUDER THAN FUNDAMENTAL INHARMONIC INH	-1.89% -1.87% -1.91% -1.73% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.13% -0.44% -0.13% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.05% -0.45% -0.05% -0.45% -0.05% -0.45% -0.05% -0.45% -0.05% -0.45% -0.05%	ch Class 11.0 6.0 11.0 6.0 11.0 6.0 12.8 11.0 6.0 13.0 14.2 14.2 9.7 2.8 0.2 15.2 18.8 1.3 0.9 6.0 7.6 3.8 1.3 0.9 6.0 7.6 3.8 1.3 6.8 7 5.6 4.7 5.6 4.7
244 23 24 24 24 24 24 25 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 27 4 2 2 20 20 20 20 20 20 20 20 20 20 20 20	2487.027 0.006698077 2383.990 0.006721407 2279.267 0.005026113 2802.530 0.00034343 401.679 0.00082418 208.235 0.000725769 2494.266 0.09418 2494.266 0.09418 2494.266 0.09418 2494.266 0.0951477 0.005035567 1335.917 0.005107153 2465.677 0.004938553 2112.380 0.00042486 353.286 0.003433987 2324.500 0.002718977 141.187 0.00503753 2465.677 0.004938553 2112.380 0.00024586 2259.837 0.0022166 1621.793 0.00226502 2595.837 0.00221667 1686.8450 0.00115365 2260.866 0.00153656 1621.793 0.0002461922 2595.837 0.00221667 1686.8450 0.0051652 2505.867 0.001593416 1765.540 0.00153656 776.930 0.000784402 1195.370 0.000981076 2574.2674.427 0.000935151 1688.450 0.000168489 2184.517 0.000981076 2674.427 0.000935151 1688.450 0.000081552 776.930 0.00074440 2195.370 0.00057142 2298.810 0.000657342 2298.810 0.000657342 2298.810 0.000657343 113.003 0.00057142 2298.810 0.000657443 213.113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.028379 113.100 0.000678473 1228.493 0.001150733 1228.493 0.0011573457 2253.4113 0.000678473 2213.113 0.000678473 221	17.81% 17.18% 12.85% 5.20% 5.211% 1.86% 5.20% 2.111% 1.86% 6.38.74% 1617.34% 930.86% 425.42% 215.53% 205.53% 205.53% 198.74% 161.97% 198.24% 161.97% 198.24% 161.97% 188.20% 199.08% 43.43,73% 43.37% 44.33% 43.73% 44.32% 44.73% 45.18.65% 23.00% 18.64% 14.42% Amp Ratio 518.87% 229.98% 215.44% 138.60% 12.65% 23.94% 14.42%	98.99 98.25 97.48 101.05 67.42 56.05 Pitch (MIDI #) 71.01 89.97 83.01 80.23 94.96 88.23 94.96 88.23 94.96 88.23 91.52 97.52 84.93 102.00 91.58 99.80 93.05 97.62 49.32 84.93 102.00 91.58 99.80 93.05 97.62 86.74 100.74	54.69 53.96 53.18 56.76 23.13 11.75 Interval from Fundamental 21.69 40.65 33.69 30.91 45.64 38.91 44.36 49.52 46.84 15.88 48.49 0.00 35.61 52.68 42.26 60.48 43.73 48.01 53.48 47.42 50.92 42.96 29.52 36.98 28.18 46.37 52.32 51.42 Interval from Fundamental 29.86 41.84 435.08 43.73 52.32 51.42	LOUDER THAN FUNDAMENTAL INHARMONIC INH	-1.89% -1.87% -1.91% -1.73% -4.93% -4.93% -1.43% -1	-0.33% -0.33% -0.34% -0.30% -1.28% -0.44% -0.44% -0.88% -0.09% -0.13% -0.05% -0.99% -0.05% -0.46% -0.51% -0.00% -0.45% -0.05% -0.06% -0.15% -0.08% -0.45% -0.05% -0.06% -0.15% -0.08% -0.05% -0.06%	ch Class 11.0 6.0 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 8.2 11.0 9.7 2.8 0.2 1.3 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3

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17	2505.603 0.004291843	28.55%	99.11	48.87	-1.05%	-0.18%	3.1
11	1572.040 0.00372147	24.75%	91.04	40.80	-4.05%	-0.78%	7.0
16	2405.683 0.002753793	18.32%	98.41	48.16	0.94%	0.17%	2.4
5	733.973 0.002623317	17.45%	77.86	27.61	-1.45%	-0.32%	5.9
10	1524.447 0.002452177	16.31%	90.51	40.26	2.35%	0.45%	6.5
12	1747.227 0.00218242	14.52%	92.87	42.63	-2.25%	-0.42%	8.9
4	539.696 0.002123093	14.12%	72.54	22.29	-9.42%	-2.31%	0.5
10	1474.353 0.001963573	13.06%	89.93	39.69	-1.02%	-0.20%	5.9
16	2358.723 0.001059337	7.05%	98.07	47.82	-1.03%	-0.18%	2.1
4	590.534 0.000697533	4.64%	74.09	23.85	-0.88%	-0.21%	2.1
2	292.804 0.000474377	3.16%	61.95	11.70	-1.71%	-0.48%	1.9

Sound 42 Bass Clarinet - Split Tone			
NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Notes	Diversion (Hz)		
8 465.287 0.22201 900.51% 69.97 36.60 LOUDER THAN FUNDAMEN	NTAL 3.539	6 0.87%	10.0
7 409.183 0.122969 498.79% 67.74 34.38 LOUDER THAN FUNDAMEN			
9 526.807 0.111993 454.26% 72.12 38.75 LOUDER THAN FUNDAMEN	NTAL 4.199	6 1.00%	0.1
17 992.054 0.102691833 416.54% 83.07 49.71 LOUDER THAN FUNDAMEN			
16 936.177 0.0918153 372.42% 82.07 48.70 LOUDER THAN FUNDAMEN			
18 1053.570 0.059894433 242.94% 84.12 50.75 LOUDER THAN FUNDAMEN			
15 876.349 0.0386635 156.83% 80.93 47.56 LOUDER THAN FUNDAMEN			
10 582.410 0.028366667 115.06% 73.85 40.49 LOUDER THAN FUNDAMEN			
1 56.178 0.0246537 100.00% 33.37 0.00	0.009		
26 1518.820 0.0242973 98.55% 90.45 57.08	3.989		
32 1872.577 0.0239314 97.07% 94.07 60.71	4.179		
23 1345.353 0.023886567 96.89% 88.35 54.98	4.129		
33 1928.080 0.023429233 95.03% 94.58 61.21	4.009		
25 1462.890 0.0227582 92.31% 89.80 56.43	4.169		
31 1810.343 0.0220812 89.57% 93.49 60.12	3.95%		
5 291.499 0.021748033 88.21% 61.87 28.50	3.789		
24 1401.480 0.020426867 82.86% 89.06 55.69	3.95%		
3 173.733 0.016835167 68.29% 52.91 19.55	3.089		
27 1580.790 0.016173567 65.60% 91.14 57.77	4.229		
35 2045.747 0.0140756 57.09% 95.60 62.24	4.049		
19 1109.593 0.0134486 54.55% 85.01 51.65	3.95%		
34 1990.357 0.013409933 54.39% 95.13 61.76	4.209		
29 1694.653 0.012501067 50.71% 92.34 58.98	4.029		
20 1169.690 0.011868553 48.14% 85.93 52.56	4.119		
21 1227.433 0.010142573 41.14% 86.76 53.39 65.08 31.72	4.049		
6 350.947 0.007822693 31.73% 65.08 31.72 11 644.481 0.007797453 31.63% 75.61 42.24	4.129 4.299		
30 1754.337 0.007066773 28.66% 92.94 59.58 13 762.217 0.0067499 27.38% 78.51 45.15	4.09% 4.37%		
22 1288.360 0.005488333 22.26% 87.60 54.23 12 700.455 0.004816637 19.54% 77.05 43.68	4.24% 3.90%		
12 700-450 0.004-010037 19.3-940 77.05 43.06 28 1638-930 0.0045565 18.48% 91.77 58.40	4.19%		
14 817.980 0.00385075 15.62% 79.73 46.37	4.00%		
14 617.980 0.00204908 15.02% 79.73 40.57 4 233.125 0.00224908 9.12% 58.00 24.64	3.749		
2 117.622 0.001609527 6.53% 46.16 12.79	4.69%		

(4.6.7.8)	Tpt - Btm -	Tpt – cup mute – low		(5)	l pt – stacca	Tpt – Btm – staccato – G#		(5,6,9,10)	Tpt – harmon – out – mid		(6,2,8,9)	Tpt – Btm – staccato – A		(6,7,9,10)	Tpt – pedal tone – pp		(6.7.X.X)	B CI – Multiphonic 2		(6,16,18,20)	Tpt – double pedal – B													
(3.4.5.6)	Tot - Btm - mf	Tpt - Btm - ff	Tpt – Btm – staccato – Hi E	Tpt – mid – ff – low	I pt – narmon - naif valve – wah – (o)		(3,4,5,7)	Tpt – Btm – staccato – Eb		(3,9,10,11)	Tpt – cup mute – pedal		(3,10,11,15)	B CI – Multiphonic 1		(4,5,6,7)			Tpt – harmon – half – mid															
(1.15.16.17)	Tpt – harmon – in – low		(2,3,4,5)		I pt – mid – π – high	Tpt – mid – staccato – F#	Tpt – harmon – out – high	Tpt – plunge – low		(2,3,4,6)	Tpt – harmon – in – high	Tpt – harmon – in – double pedal	Tpt – plunge rev – low		(2,3,5,6)	FI – Btm – ff – low	Tpt – harmon – half – high	,																
	B CI - Chal - ff - low		(1,3,9,24) B CI – Chal –	gato – C		(1,5,6,X)	FI – Multiphonic		(1,5,7,X)	Eb Cl – Multiphonic 1		(1,5,X,X)	, 2		(1,7,8,12)	Tpt – harmon – in – mid		(1.8.10.17)	B CI - Chal -		(1,12,13,X)	Tpt – harmon – out – pedal												
(4.3.7.8)	Eb Cl - Chal - Legato - G	Eb Cl - Chal - Legato - F	B CI – Clar – ff – low		(1,3,7,9)	Eb Cl - Chal - # - low	B CI – Chal – pp – low	B CI - Clar - staccato - low		(1,3,7,10)	B CI - Chal - legato - Bb		(1,3,7,22)	B CI – Chal – legato – D		(1,3,9)	B CI - Throat - pp - low		(4.3.9.16)	B CI – Chal – mf – low														
(4.3.5.9)	- Eb Cl - Chal - Legato - Eb	B CI – Chal – legato – A	B CI – Chal – legato – Bb B CI – Throat –	legato – F#		(1,3,5,10)	B C stac		(1.3.5.11)	B CI – Chal – legato – G		(1,3,5,12)	B CI - Chal - staccato - high		(1,3,5,13)	B CI – Chal – ff – high		(1.3.6.7)	B C															
	- mf - Eb Cl - Chal - mf -	l'	- # -	>	Eb Cl – Chal – Legato – Bb	Eb Cl – Chal – Legato – Ab	Eb Cl - Throat - pp - high	Eb CI – Throat – pp Eb CI – Throat – ff – – mid	legato Eb CI – Throat – ff – mid	B CI – Chal – mf – high	B CI – Chal – pp – high	B CI – Chal – legato – Eb	B CI – Chal – legato B Ci – - F	B CI – Throat – ff – high	B CI – Throat – legato – E	B CI – Throat – legato – F	B CI – Throat – legato – G	B CI – Throat – legato – G#	ΙΫ́	B CI – Clar – legato – Eb														
(1.3.4.5)	Eb Cl - Chal - mf - high	SI – Chal – cato – high	ي ا			(1,3,4,6)	Eb CI – Throat – pp low	Eb CI – Throat – pp – mid	- Clar –	Tpt – harmon - half valve – wah – (c)		(1,3,4,7)		B Cl – Clar – legato – D		(1,3,5,6)	Eb CI – Chal – egato – C#	Eb CI – Chal – egato – C	:b CI – Throat – ff	3 CI – Throat – taccato – low	B Cl – Clar – ff – high	B CI – Clar – legato – F												
(1.2.4.X)	FI - Mid - staccato		(1,2,5,6)			(1,2,5,X)	3 rd				Tpt – half valve – mid low		(1,2,27,28)	Tpt – harmon – out – double pedal		(1,2,X,X)	FI - Top - Staccato		If Eb CI - Throat - 1 - high															
(1.2.3.7)	FI - Mid - legato -		(1,2,3,10)	- high		(1,2,3,X)	I - Top - Staccato	- dd	- d -	၂ ပ		(1,2,4,5)	B CI – Alt – ff – high	B CI – Alt – staccato – high	B CI – Alt – legato – A	Tpt – half valve – mid high			Tpt – harmon – half – double pedal		(1,2,4,10)	Tpt – plunge – high												
	1	Btm – cato – C	FI – Btm – staccato – D FI – Btm –	staccato – E	FI – Btm – legato – C	FI – Btm – legato – D	FI – Brk – ff – Iow	FI – Mid – legato – F	FI – Mid – legato <mark>Tpt</mark> – top – p – A	FI – Mid – legato Tpt – top – C	FI – Top – pp – high	FI – Top – legato – C	at -	_		١. ا			1															
(1.2.3.4 cont.)	- mid - pp -	ద	- mid - cato - A - mid -	staccato – B	Ipt - mid - staccato - C#	rpt – mid – staccato – Eb			١, ١	Tpt – top – f – high	Tpt – top – staccato – F		Tpt – top – B Cl – Thro staccato – G# pp – high	Tpt – half valve – low	Tpt – half valve – high	pt – cup mute – nid	Tpt – plunge – mid	Tpt – plunge rev – mid	FI – Btm – legato FI – Btm – mf – Hi C	Tpt – Btm – pp														
(1.2.3.4 cont.)	FI - Brk - pp -	FI – Brk – pp – High		staccato – ALL	FI – Brk – legato – ALL	FI – Mid – pp – low	ı.	١	- # .	FI – Mid – staccato – Iow	FI – Mid – legato – Bb	Ļ		FI – Top – ff – high	op – ato – mid	FI – Top – legato – D	FI – Top – legato – E	FI – Top – legato II – F	FI – Top – legato – G	FI – Top – legato – A	FI – Top – legato – B	B Cl – Clar – pp – high	B CI - Clar - legato - G	B Cl – Clar – legato – A	B CI – Alt – pp – low	B CI - Alt - pp -	B CI – Alt – ff – low	B CI - Alt - staccato - low	B CI - Alt - legato - Bb	B CI - Alt - legato - C	B CI – Alt – legato – Eb	B CI - Alt - legato - G	B CI – Alt – legato – Bb	
	١.	Eb CI – Clar – pp – high			- Clar - to - low				ař.		1				Eb Cl – Alt – pp – high	Eb Cl - Alt - ff - Iow		Eb Cl - Alt - ff -		Eb Cl - Alt - legato - ALL	- dd - w	3tm – mf –	,	Btm – cato – F				ပ	FI – Btm – legato – E	FI – Btm – legato – F	FI – Btm – legato – G	FI – Btm – legato – A	FI – Btm – legato – B	

F 1

				Appendix 7			
MODE Trumpet harmon (half)	Core Intervals 0.5, 3.5, 4, 4.5, 5						
double pedal B≠ - 1 B - 2	(1,2,3,4) B≠, B, Gd, Eb	(1,2,3,X) B≠, B, Gd, X	(1,2,5,6) B≠, B, G≠, F#	(1,3,4,5) B≠, Gd, Eb, G≠	(1,3,5,9) B≠, Gd, G≠, A≠	(1,3,6,7) B≠, Gd, F#, Bb	(1,3,9) B≠, Gd, A≠
Gd - 3 Eb - 4 G≠ - 5 F# - 6	(1,2,3,5) B≠, B, Gd, G≠	(1,2,4,5) B≠, B, Eb, G≠	(1,2,5,X) B≠, B, G≠, X	(1,3,4,6) B≠, Gd, Eb, F#	(1,3,5,10) B≠, Gd, G≠, C≠	(1,3,7,8) B≠, Gd, Bb, A	(1,3,9,16) B≠, Gd, A≠, (B≠)
Bb - 7 A - 8 A≠ -9	(1,2,3,6) B≠, B, Gd, F#	(1,2,4,6) B≠, B, Eb, F#	(1,2,7,11) B≠, B, Bb, C#	(1,3,4,7) B≠, Gd, Eb, Bb	(1,3,5,11) B≠, Gd, G≠, C#	(1,3,7,9) B≠, Gd, Bb, A≠	(1,3,9,17) B≠, Gd, A≠, B
C≠ - 10 C# - 11 Dd – 12	(1,2,3,7) B≠, B, Gd, Bb	(1,2,4,10) B≠, B, Eb, C≠	(1,2,27,28) B≠, B, Dd, F	(1,3,5,6) B≠, Gd, G≠, F#	(1,3,5,12) B≠, Gd, G≠, Dd	(1,3,7,10) B≠, Gd, Bb, C≠	(1,3,9,24) B≠, Gd, A≠, (A≠)
F – 13 Ed – 14 D≠ - 15	(1,2,3,10) B≠, B, Gd, C≠	(1,2,4,X) B≠, B, Eb, X	(1,2,X,X) B≠, B, X, X	(1,3,5,7) B≠, Gd, G≠, Bb	(1,3,5,13) B≠, Gd, G≠, F	(1,3,7,22) B≠, Gd, Bb, (Bb)	(1,5,6,X) B≠, G≠, F#, X
	(1,5,7,X) B≠, G≠, Bb, X	(1,15,16,17) B≠, D≠, (B≠), B	(3,4,5,7) Gd, Eb, G≠, Bb	(5,6,8,9) G≠, F#, A, A≠	(6,16,18,20) (F#, B≠, Gd, G≠)	(10,11,12,13) C≠, C#, Dd, F	
	(1,5,X,X) B≠, G≠, X, X	(2,3,4,5) B, Gd, Eb, G≠	(3,9,10,11) Gd, A≠, C≠, C#	(5,6,9,10) G≠, F#, A≠, C≠	(7,8,9,10) Bb, A, A≠, C≠	(11,12,X,X) Dd, F, X, X	
	(1,7,8,12) B≠, Bb, A, Dd	(2,3,4,6) B, Gd, Eb, F#	(3,10,11,15) Gd, C≠, C#, D≠	(6,7,8,9) F#, Bb, A, A≠	(7,8,9,17) Bb, A, A≠, B	(15,19,21,22) D≠, Eb, F#, Bb	
	(1,8,10,17) B≠, A, C≠, B	(2,3,5,6) B, Gd, G≠, F#	(4,5,6,7) Eb, G≠, F#, Bb	(6,7,9,10) F#, Bb, A≠, C≠	(7,10,16,18) (Bb, C≠, B≠, Gd)	(20,23,27,29) G≠, A, Dd, Ed	
	(1,12,13,X) B≠, Dd, F, X	(3,4,5,6) Gd, Eb, G≠, F#	(4,6,7,8) Eb, F#, Bb, A	(6,7,X,X) F#, Bb, X, X	(9,11,12,13) A≠, C#, Dd, F		
MODE	Core Intervals						
Trumpet harmon (half) valve wah (C)	2.5, 3, 4, 5, 5.5						
Ed – 1 Bd – 2 C# - 3	(1,2,3,4) Ed, Bd, C#, Gd	(1,2,3,X) Ed, Bd, C#, X	(1,2,5,6) Ed, Bd, B≠, Dd	(1,3,4,5) Ed, C#, Gd, B≠	(1,3,5,9) Ed, C#, B≠, A	(1,3,6,7) Ed, C#, Dd, A≠	(1,3,9) Ed, C#, A
Gd – 4 B≠ - 5 Dd – 6	(1,2,3,5) Ed, Bd, C#, B≠	(1,2,4,5) Ed, Bd, Gd, B≠	(1,2,5,X) Ed, Bd, B≠, X	(1,3,4,6) Ed, C#, Gd, Dd	(1,3,5,10) Ed, C#, B≠, G≠	(1,3,7,8) Ed, C#, A≠, E≠	(1,3,9,16) Ed, C#, A, Bd
A≠ - 7 E≠ - 8 A – 9	(1,2,3,6) Ed, Bd, C#, Dd	(1,2,4,6) Ed, Bd, Gd, Dd	(1,2,7,11) Ed, Bd, A≠, C≠	(1,3,4,7) Ed, C#, Gd, A≠	(1,3,5,11) Ed, C#, B≠, C≠	(1,3,7,9) Ed, C#, A≠, A	(1,3,9,17) Ed, C#, A, (C#)
G≠ - 10 C≠ - 11 Ad – 12	(1,2,3,7) Ed, Bd, C#, A≠	(1,2,4,10) Ed, Bd, Gd, G≠	(1,2,27,28) Ed, Bd, F#, F	(1,3,5,6) Ed, C#, B≠, Dd	(1,3,5,12) Ed, C#, B≠, Ad	(1,3,7,10) Ed, C#, A≠, G≠	(1,3,9,24) Ed, C#, A, G≠
F# - 13 F – 14	(1,2,3,10) Ed, Bd, C#, G≠	(1,2,4,X) Ed, Bd, Gd, X	(1,2,X,X) Ed, Bd, X, X	(1,3,5,7) Ed, C#, B≠, A≠	(1,3,5,13) Ed, C#, B≠, F#	(1,3,7,22) (Ed, C#, A≠, E≠)	(1,5,6,X) Ed, B≠, Dd, X
	(1,5,7,X) Ed, B≠, A≠, X	(1,15,16,17) Ed, (Ed), Bb, C#	(3,4,5,7) C#, Gd, B≠, A≠	(5,6,8,9) B≠, Dd, E≠, A	(6,16,18,20) Dd, Bd, Gd, (Dd)	(10,11,12,13) G≠, C≠, Ad, F#	
	(1,5,X,X) Ed, B≠, X, X	(2,3,4,5) Bd, C#, Gd, B≠	(3,9,10,11) C#, A, G≠, C≠	(5,6,9,10) B≠, Dd, A, G≠	(7,8,9,10) A≠, E≠, A, G≠	(11,12,X,X) C≠, Ad, X, X	
	(1,7,8,12) Ed, A≠, E≠, Ad	(2,3,4,6) Bd, C#, Gd, Dd	(3,10,11,15) C#, G≠, C≠, Ed	(6,7,8,9) Dd, A≠, E≠, A	(7.3.9.17) A≠, E≠, A, C#	(15,19,21,22) Ed, B≠, A≠, E≠	
	(1,8,10,17) Ed, E≠, G≠, C#	(2,3,5,6) Bd, C#, B≠, Dd	(4,5,6,7) Gd, B≠, Dd, A≠	(6,7,9,10) Dd, A≠, A, G≠	(7,10,16,18) A≠, G≠, Bd, Gd	(20,23,27,29) Dd, A, F#, Ed	
	(1,12,13,X) Ed, Ad, F#, X	(3,4,5,6) C#, Gd, B≠, Dd	(4,6,7,8) Gd, Dd, A≠, E≠	(6,7,X,X) Dd, A≠, X, X	(9,11,12,13) A, C≠, Ad, F#		
MODE Bass Clarinet	Core Intervals 1.5, 2, 3.5, 4, 4.5, 6						
clarion staccato – Eb Eb – 1	(1,2,3,4)	(1,2,3,X)	(1,2,5,6)	(1,3,4,5)	(1,3,5,9)	(1,3,6,7)	(1,3,9)
G – 2 A – 3 Bd – 4	Eb, G, A, Bd (1,2,3,5)	Eb, G, A, X (1,2,4,5)	Eb, G, C≠, Bb (1,2,5,X)	Eb, A, Bd, C≠ (1,3,4,6)	Eb, A, C≠, F# (1,3,5,10)	Eb, A, Bb, G≠ (1,3,7,8)	Eb, A, F# (1,3,9,16)
C≠ - 5 Bb – 6 G≠ - 7	Eb, G, A, C≠ (1,2,3,6)	Eb, G, Bd, C≠ (1,2,4,6)	Eb, G, C≠, X (1,2,7,11)	Eb, A, Bd, Bb (1,3,4,7)	Eb, A, C≠, B (1,3,5,11)	Eb, A, G≠, C (1,3,7,9)	Eb, A, F#, Ed (1,3,9,17)
C - 8 F# - 9 B - 10	Eb, G, A, Bb	Eb, G, Bd, Bb (1,2,4,10)	Eb, G, G≠, Dd (1,2,27,28)	Eb, A, Bd, G≠ (1,3,5,6)	Eb, A, C≠, Dd (1,3,5,12)	Eb, A, G≠, F# (1,3,7,10)	Eb, A, F#, Ab (1,3,9,24)
Dd – 11 F – 12 E – 13	Eb, G, A, G≠ (1,2,3,10)	Eb, G, Bd, B	Eb, G, B, Dd	Eb, A, C≠, Bb	Eb, A, C≠, F (1,3,5,13)	Eb, A, G≠, B (1,3,7,22)	Eb, A, F#, G≠ (1,5,6,X)
F≠ - 14 D≠ - 15 Ed – 16 Ab – 17	Eb, G, A, B	Eb, G, Bd, X	Eb, G, X, X	Eb, A, C≠, G≠	Eb, A, C≠, E	(Eb, A, G≠, C≠)	Eb, C≠, Bb, X
Ab – 17	(1,5,7,X) Eb, C≠, G≠, X	(1,15,16,17) Eb, D≠, Ed, Ab	(3,4,5,7) A, Bd, C≠, G≠	(5,6,8,9) C≠, Bb, C, F#	(6,16,18,20) Bb, Ed, Eb, A	(10,11,12,13) B, Dd, F, E	

Appendix 7 (2,3,4,5) G, A, Bd, C≠ (7,8,9,10) G≠, C, F#, B, (11,12,X,X) Dd, F, X, X (1,5,X,X) Eb, C≠, X, X (5,6,9,10) C≠, Bb, F#, B A, F#, B, Dd (1,7,8,12) (2,3,4,6) (6,7,8,9) Bb, G≠, C, F# (7,8,9,17) G≠, C, F#, Ab (3,10,11,15) A, B, Dd, D≠ D#. G. Bd. C# Eb. G≠. C. F G. A. Bd. Bb (1,8,10,17) Eb, C, B, Ab (6,7,9,10) Bb, G≠, F#, B (4,5,6,7) Bd, C≠, Bb, G≠ G, A, C≠, Bb G≠, B, Ed, Eb A, Bb, B, F (1,12,13,X) Eb, F, E, X (6,7,X,X) Bb, G≠, X, X (9,11,12,13) F#, Dd, F, E (4,6,7,8) Bd, Bb, G≠, C A, Bd, C≠, Bb MODE Core Intervals Bass Clarinet |2.5, 3, 3.5, 5.5| chalumeau <mark>high – mf</mark> Ab – 1 E≠ - 2 (1,2,5,6) Ab, E≠, C≠, Eb (1,3,4,5) Ab, B, Dd, C≠ (1,3,5,9) Ab, B, C≠, F# (1,3,6,7) Ab, B, Ed, E (1,2,3,4) Ab, E≠, B, Dd (1,2,3,X) Ab, E≠, B, X (1,3,9) Ab, B, F# (1.2.3.5)(1,2,4,5) Ab, E≠, Dd, C≠ (1,2,5,X) Ab, E≠, C≠, X (1,3,5,10) Ab, B, C≠, Bd (1,3,7,8) Ab, B, E, A≠ (1,3,9,16) Ab, B, F#, D (1,3,4,6) Ab, B, Dd, Eb Dd - 4C≠ - 5 Eb – 6 Ab, E≠, B, C≠ (1,2,3,6) Ab, E≠, B, Eb (1,2,4,6) Ab, E≠, Dd, Eb (1,2,7,11) Ab, E≠, E, B≠ (1,3,4,7) Ab, B, Dd, E (1,3,5,11) Ab, B, C≠, B≠ (1,3,7,9) Ab, B, E, F# (1,3,9,17) Ab, B, F#, Ad A≠ - 8 F# - 9 (1,2,27,28) (1,3,9,24) Bd - 10 (1,2,4,10)(1,3,5,12) (1,3,7,10)B≠ - 11 F – 12 Ab, E≠, Dd, Bd Ab, B, C≠, Eb Ab, E≠, B, E Ab, E≠, Bd, B≠ Ab, B, C≠, F Ab, B, E, Bd (Ab, B, F#, E) Ed - 13 G - 14 (1,2,3,10) Ab, E≠, B, Bd (1,2,4,X) Ab, E≠, Dd, X (1,2,X,X) Ab, E≠, X, X (1,3,5,7) Ab, B, C≠, E (1,3,5,13) Ab, B, C≠, Ed (1,3,7,22) (Ab, B, E, C≠) (1,5,6,X) Ab, C≠, Ed, X C# - 15 D - 16 Ad - 17 (1,5,7,X) Ab, C≠, E, X (1,15,16,17) (6,16,18,20) Eb, D, Ab, B (5,6,8,9) C≠. Eb. A≠. F# (3,4,5,7) B, Dd, C≠, E Ab. C#. D. Ad Bd. B≠. F. Fd (1,5,X,X) Ab, C≠, X, X (7,8,9,10) E, A≠, F#, Bd (11,12,X,X) B≠, F, X, X E≠, B, Dd, C≠ B, F#, Bd, B≠ C≠, Eb, F#, Bd (3,10,11,15) B, Bd, B≠, C# (1,7,8,12) Ab, E, C≠, F (7,8,9,17) E, A≠, F#, Ad (6,7,8,9) Eb, E, A≠, F# E≠, B, Dd, Eb C#, E≠, Dd, C≠ (6,7,9,10) Eb, E, F#, Bd (1,8,10,17) (2,3,5,6) Dd, C≠, Eb, E Ab, C≠, Bd, Ad E≠, B, C≠, Eb E, Bd, D, Ab B, Eb, Bd, F (1,12,13,X) Ab, F, Ed, X (6,7,X,X) Eb, E, X, X (9,11,12,13) F#, B≠, F, Ed B, Dd, C≠, Eb Dd, C≠, E, A≠ MODE Core Intervals Bass Clarinet |1, 2, 2.5, 3.5, 4.5| split tone (transposed +2) (1,2,3,X) C, A≠, D, X (1,2,5,6) C, A≠, B, E (1,3,4,5) C, D, C#, B (1,3,5,9) C, D, B, Gd (1,3,6,7) C, D, E, B≠ (1,2,3,4)(1,3,9) C, D, Gd A≠ - 2 D – 3 C, A≠, D, C# C# - 4 B – 5 (1,2,3,5) C, A≠, D, B (1,2,4,5) C, A≠, C#, B (1,2,5,X) C, A≠, B, X (1,3,5,10) C, D, B, C≠ (1,3,4,6) C, D, C#, E (1,3,7,8) C, D, B≠, Ad (1,3,9,16) C, D, Gd, Bd E – 6 B≠ - 7 (1,2,3,6) (1,2,4,6) (1,2,7,11) (1,3,5,11) (1,3,7,9) (1,3,9,17) (1,3,4,7)Ad – 8 Gd – 9 C, A≠, D, E C, A≠, C#, E C, A≠, B≠, Ab C, D, C#, B≠ C, D, B, Ab C, D, B≠, Gd C, D, Gd, F C≠ - 10 Ab – 11 (1,2,3,7) C, A≠, D, B≠ (1,2,4,10) C, A≠, C#, C≠ (1,2,27,28) C, A≠, Ad, Gd (1,3,5,6) C, D, B, E (1,3,5,12) C, D, B, G (1,3,7,10) C, D, B≠, C≠ (1,3,9,24) (C, D, Gd, B) G – 12 A – 13 (1,2,3,10) C. A≠. D. C≠ (1,2,4,X) C. A≠. C#. X (1,2,X,X) C. A≠. X. X (1,3,5,7) C. D. B. B≠ (1,3,5,13) C. D. B. A (1,3,7,22) C, D, B≠, (D) (1,5,6,X) C. B. E. X Dd - 14 Eb - 15 Bd - 16 F – 17 F≠ - 18 (1,15,16,17) C, Eb, Bd, F C, B, B≠, X D, C#, B, B≠ B, E, Ad, Gd E, Bd, F≠, C C≠, Ab, G, A (1,5,X,X) C, B, X, X (7,8,9,10) B≠, Ad, Gd, C≠ (11,12,X,X) Ab, G, X, X D, Gd, C≠, Ab B, E, Gd, C≠ A≠, D, C#, B (3,10,11,15) D, C≠, Ab, Eb (15,19,21,22) Eb, Bb, A≠, D (1,7,8,12)(7,8,9,17) B≠, Ad, Gd, F (6,7,8,9) E, B≠, Ad, Gd C, B≠, Ad, G A≠, D, C#, E

(6,7,9,10) E, B≠, Gd, C≠

(6,7,X,X) E, B≠, X, X (7,10,16,18) B≠, C≠, Bd, F≠

(9,11,12,13) Gd, Ab, G, A (20,23,27,29) C, C#, Ad, C≠

(1,8,10,17) C, Ad, C≠, F

(1,12,13,X) C, G, A, X (2.3.5.6)

A≠, D, B, E

D, C#, B, E

C#, B, E, B≠

C#, B, E, Ad

Appendix 8

Sound 1	You 1 – start							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental		Diversion (Pitch)	
1	105.388	0.00258081	100.00%	44.26	0.00	0.00%		8.3
2		0.00117554	45.55%	55.81	11.56	-2.53%		7.8
3		0.000565917	21.93%	62.98	18.72	-1.72%		3.0
4		0.00018947	7.34%	67.77	23.51	-2.79%		7.8
5		9.29E-005	3.60%	71.73	27.47	-2.23%		11.7
28		6.33E-005	2.45%	102.12	57.86	0.98%		
6		3.93E-005	1.52%	74.77	30.51	-2.88%		2.8
27		3.58E-005	1.39%	101.56	57.30	1.39%		5.6
20		3.31E-005	1.28%	96.49	52.23	2.17%		0.5
7		3.29E-005	1.27%	77.34	33.08	-3.44%		5.3
26		2.65E-005	1.03%	100.91	56.65	1.41%		4.9
27		2.59E-005	1.00%	101.31	57.05	-0.04%		5.3
25		2.04E-005	0.79%	100.08	55.82	0.54%		4.1
20		1.93E-005	0.75%	95.70	51.45	-2.38%		11.7
16		1.86E-005	0.72%	91.86	47.60	-2.28%		7.9
26		1.75E-005	0.68%	100.42	56.16	-1.39%		4.4
23		1.69E-005	0.65%	98.30	54.04	-1.39%		2.3
22		1.64E-005	0.63%	98.06	53.80	1.69%		2.1
24		1.55E-005	0.60%	99.05	54.79	-1.33%		3.0
8		1.46E-005	0.57%	79.96	35.70	-1.72%		8.0
21		1.44E-005	0.56%	97.32	53.06	2.04%		1.3
11		1.46E-005	0.56%	85.35 94.47	41.09	-2.42%		1.3
18		1.39E-005	0.54%		50.21	0.97%		
18 21		1.37E-005 1.31E-005	0.53% 0.51%	93.89 97.10	49.63	-2.33% 0.77%		9.9 1.1
24		1.29E-005	0.51%	99.58	52.84 55.32	1.78%		
22		1.29E-005	0.50%	99.56 97.66	53.40	-0.65%		3.6 1.7
23		1.15E-005	0.45%	98.59	54.34	0.31%		2.6
19		1.13E-005	0.44%	95.33	51.07	0.54%		11.3
10		1.04E-005	0.40%	84.68	40.42	3.26%		0.7
12		1.03E-005	0.40%	86.77	42.51	-2.88%		2.8
9		1.01E-005	0.39%	81.84	37.58	-2.63%		9.8
14		9.58E-006	0.37%	90.19	45.94	1.44%		9.8 6.2
15			0.37%	90.69	46.43	-2.59%		6.7
16			0.36%	92.50	48.25	1.43%		8.5
- 10	17 10.200	0. <u>L</u> 0L-000	0.0070	02.00	10.20	1.4070	0.21 /0	0.0

Sound 2	You 1 – middle	9						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental		Diversion (Pitch)	
1	116.390	0.00494779	100.00%	45.98	0.00	0.00%		
2		0.00322265	65.13%	57.57	11.59	-2.34%		
3		0.0010028	20.27%	64.71	18.73	-1.65%		
4		0.000137017	2.77%	69.53	23.56	-2.54%		
5	560.520	3.65E-005	0.74%	73.19	27.21	-3.68%		
6			1.37%	76.48	30.50	-2.93%		
7		2.46E-005	0.50%	78.82	32.84	-4.79%		
7		1.96E-005	0.40%	80.37	34.39	4.14%		
8		3.73E-005	0.75%	81.47	35.50	-2.86%		
8			0.43%	82.32	36.34	2.00%		
9		2.59E-005	0.52%	83.43	37.45	-3.32%		
10		1.96E-005	0.40%	85.20	39.22	-3.66%		
13		3.14E-005	0.63%	89.95	43.97	-2.47%		
13			0.42%	90.58	44.60	1.14%		
14			0.71%	91.28	45.30	-2.22%		
14		2.40E-005	0.49%	91.83	45.85	0.95%		
15			0.72%	92.42	46.45	-2.49%		
15			0.75%	92.96	46.98	0.57%		
15			0.55%	93.27	47.30	2.42%		
16			1.11%	94.00	48.03	0.16%		
16			1.68%	94.36	48.38	2.24%		
17		0.000106876	2.16%	94.77	48.79	-1.49%		
17			3.77%	95.33	49.36	1.79%		
18		0.000200298	4.05%	95.70	49.73	-1.80%		
18		0.000213567	4.32%	96.31	50.33	1.68%		
19		0.000100988	2.04%	96.67	50.69	-1.62%		
19			1.01%	97.25	51.27	1.72%		
20			1.86%	97.75	51.77	-0.53%		
20			1.39%	98.06	52.08	1.27%		
21			2.92%	98.54	52.56	-0.85%		2.5
22		0.000286883	5.80%	99.35	53.37	-0.81%		
23		0.000291636	5.89%	100.07	54.09	-1.08%		
24		0.000292778	5.92%	100.83	54.85	-0.95%		
25		0.000178906	3.62%	101.54	55.57	-0.92%		
26	2992.120	0.000197573	3.99%	102.19	56.21	-1.12%	-0.19%	6.2

Sound 3	You 1 – end							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	138.525	0.00500262	100.00%	48.99	0.00	0.00%	0.00%	1.0
2	270.445	0.00510182	101.98%	60.57	11.58	-2.38%	-0.68%	0.6
3	409.333	0.000556615	11.13%	67.75	18.76	-1.50%	-0.39%	7.7
4	528.644	4.25E-005	0.85%	72.18	23.19	-4.59%	-1.12%	0.2
5	689.426	0.000111396	2.23%	76.77	27.78	-0.46%	-0.10%	4.8
6	796.736	5.08E-005	1.01%	79.28	30.29	-4.14%	-0.91%	7.3
7	970.030	3.75E-005	0.75%	82.69	33.69	0.04%	0.01%	10.7
3	1119.730	3.36E-005	0.67%	85.17	36.18	1.04%	0.21%	1.2
9	1259.630	3.29E-005	0.66%	87.21	38.22	1.04%	0.20%	3.2
10	1399.540	4.53E-005	0.91%	89.03	40.04	1.03%	0.20%	5.0

11	1530.020	6.66E-005	1.33%	90.58	41.58	0.41%	0.08%	6.6
11	1582.670	4.91E-005	0.98%	91.16	42.17	3.87%	0.73%	7.2
12	1692.060 (0.000127525	2.55%	92.32	43.33	1.79%	0.33%	8.3
12	1720.580	0.000111856	2.24%	92.61	43.62	3.51%	0.65%	8.6
13	1828.480 (0.000447792	8.95%	93.66	44.67	1.54%	0.28%	9.7
14	1926.950 (0.000990707	19.80%	94.57	45.58	-0.64%	-0.12%	10.6
14	1960.900 (0.000986798	19.73%	94.87	45.88	1.11%	0.20%	10.9
15	2068.400 (0.000568539	11.36%	95.80	46.80	-0.46%	-0.08%	11.8
15	2100.150 (0.000587603	11.75%	96.06	47.07	1.07%	0.19%	0.1
15	2131.900 (0.000441724	8.83%	96.32	47.33	2.60%	0.46%	0.3
16	2196.690	0.000311245	6.22%	96.84	47.85	-0.89%	-0.16%	0.8
16	2238.430	0.00025489	5.10%	97.16	48.17	0.99%	0.18%	1.2
17	2335.600 (0.000108827	2.18%	97.90	48.91	-0.82%	-0.15%	1.9
17	2378.640	9.34E-005	1.87%	98.21	49.22	1.01%	0.18%	2.2
17	2413.010	6.92E-005	1.38%	98.46	49.47	2.47%	0.43%	2.5
18	2474.290	6.13E-005	1.22%	98.90	49.91	-0.77%	-0.13%	2.9
18	2510.020	8.36E-005	1.67%	99.15	50.15	0.66%	0.12%	3.1
18	2551.290	4.57E-005	0.91%	99.43	50.44	2.32%	0.40%	3.4
19	2605.110	5.38E-005	1.08%	99.79	50.80	-1.02%	-0.18%	3.8
19	2648.770	6.74E-005	1.35%	100.08	51.09	0.64%	0.11%	4.1
19	2690.150	6.18E-005	1.24%	100.35	51.35	2.21%	0.38%	4.3
20	2735.350	5.58E-005	1.12%	100.63	51.64	-1.27%	-0.22%	4.6
20		0.000102691	2.05%	100.96	51.97	0.64%	0.11%	5.0
20	2824.230	9.59E-005	1.92%	101.19	52.20	1.94%	0.33%	5.2
21	2872.870	8.57E-005	1.71%	101.48	52.49	-1.24%	-0.21%	5.5

Sound 4	Can – start							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental		Diversion (Pitch)	
1	98.905	1.39E-004	100.00%	43.16	0.00	0.00%	0.00%	7.2
2	172.858		38.71%	52.83	9.67	-12.61%		
3	311.187		64.73%	63.00	19.84	4.88%		
4		0.000238979	172.14%	66.76	23.60	-2.26%		
5	452.973		215.23%	69.50	26.34	-8.40%		
5	537.011		64.63%	72.45	29.29	8.59%		
6			71.35%	74.47	31.31	1.68%		
7	666.782		43.05%	76.20	33.04	-3.69%		
7	703.083		33.55%	77.11	33.96	1.55%		
7	740.922	6.52E-005	46.93%	78.02	34.86	7.02%		
8		0.000107115	77.16%	79.06	35.90	-0.58%		
9			48.61%	80.44	37.28	-4.31%		
9			47.05%	81.68	38.52	2.83%		
10			36.48%	82.87	39.71	-0.89%		
10			49.70%	83.60	40.44	3.39%		
11			31.72%	84.69	41.53	0.12%		
12			31.28%	85.83	42.67	-1.98%		
12			17.92%	86.57	43.41	2.28%		
13			20.15%	87.21	44.05	-2.04%		
13			40.73%	88.19	45.03	3.69%		
14			38.58%	89.15	45.99	1.78%		
15			46.54%	89.84	46.68	-1.15%		
16		0.000124133	89.42%	90.81	47.65	-1.98%		
16			66.03%	91.28	48.12	0.71%		
17			90.31%	91.86	48.70	-1.99%		
18 18		0.000165674 0.000134097	119.34% 96.59%	92.82 93.27	49.66 50.11	-2.15% 0.40%		
19		0.000134097	96.59% 147.75%	93.87	50.11	-1.50%		
20		0.000205122	119.69%	93.67	51.79	-0.39%		
22		0.000106165	75.87%	94.95	53.25	-0.39% -1.52%		
22			66.26%	96.83	53.25	0.90%		
23		0.000118898	85.65%	97.50	54.35	0.36%		
24			34.26%	98.37	55.21	1.10%		
26			74.09%	99.29	56.13	-1.60%		
26			55.06%	99.29	56.41	0.03%		
20	25/2.310	7.04E-005	35.06%	99.57	30.41	0.03%	0.01%	3.0

Sound 5	Can – middle							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
-	105.381	4.44E-003	100.00%	44.26	0.00	0.00%	0.00%	
2	204.529	1.92E-003	43.26%	55.74	11.48	-2.96%	-0.92%	
3	302.749	1.73E-003	38.98%	62.53	18.27	-4.24%	-1.18%	
4	409.766	0.00174324	39.28%	67.77	23.51	-2.79%		
Ę	516.528	0.00142487	32.11%	71.78	27.52	-1.97%		
(623.730	0.000712407	16.05%	75.04	30.78	-1.35%		
7	721.895	0.000401997	9.06%	77.57	33.31	-2.14%		
8		0.000529689	11.94%	79.97	35.71	-1.67%		
9		0.000277036	6.24%	82.08	37.82	-1.25%		
10			7.79%	83.61	39.36	-2.89%		
11			7.24%	85.34	41.08	-2.47%		
12		0.000166996	3.76%	86.76	42.50	-2.94%		
13			4.07%	88.35	44.10	-1.77%		
14		0.000395706	8.92%	89.56	45.31	-2.18%		
14		0.000382567	8.62%	90.06	45.80	0.63%		
15		0.000588582	13.26%	90.79	46.54	-1.98%		
16			6.21%	91.96	47.70	-1.71%		
16			4.95%	92.64	48.38	2.23%		
17			4.87%	92.95	48.70	-2.02%		
17			3.82%	93.67	49.42	2.14%		
18			4.25%	93.98	49.72	-1.80%		
18	1936.890	0.000135671	3.06%	94.66	50.40	2.11%	0.38%	10.7

19	1970.550 0.000137984	3.11%	94.96	50.70	-1.58%	-0.29%	11.0
19	2002.730 0.000139475	3.14%	95.24	50.98	0.02%	0.00%	11.2
19	2036.160 0.000149328	3.37%	95.52	51.27	1.69%	0.31%	11.5
20	2077.000 0.0001851	4.17%	95.87	51.61	-1.45%	-0.26%	11.9
20	2141.670 0.000133131	3.00%	96.40	52.14	1.62%	0.29%	0.4
21	2175.420 0.000148184	3.34%	96.67	52.41	-1.70%	-0.31%	0.7
21	2248.270 0.000119266	2.69%	97.24	52.98	1.59%	0.28%	1.2
22	2303.810 0.00015133	3.41%	97.66	53.40	-0.63%	-0.11%	1.7
22	2347.830 0.000211881	4.77%	97.99	53.73	1.27%	0.22%	2.0
23	2380.900 0.000184814	4.16%	98.23	53.97	-1.77%	-0.31%	2.2
23	2410.090 1.75E-004	3.94%	98.44	54.18	-0.56%	-0.10%	2.4
23	2454.840 0.000190864	4.30%	98.76	54.50	1.28%	0.22%	2.8
24	2509.780 0.000155743	3.51%	99.14	54.89	-0.77%	-0.13%	3.1

Sound 6	Can – end							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	97.730	0.00318013	100.00%	42.95	0.00	0.00%		7.0
2	195.231	0.00169314	53.24%	54.93	11.98	-0.12%		6.9
3	292.522	0.00184338	57.97%	61.93	18.98	-0.23%		1.9
4		0.000435181	13.68%	66.86	23.91	-0.54%		6.9
5		0.000184608	5.81%	71.00	28.05	1.07%		11.0
6	591.611	7.12E-005	2.24%	74.13	31.17	0.89%		2.1
7	688.786	9.19E-005	2.89%	76.76	33.81	0.68%		4.8
8	785.596	6.59E-005	2.07%	79.04	36.08	0.48%		7.0
9	882.747	8.55E-005	2.69%	81.05	38.10	0.36%		9.1
10	979.231	6.72E-005	2.11%	82.85	39.90	0.20%		10.8
11		0.000115634	3.64%	84.66	41.70	1.11%		0.7
12		0.000185009	5.82%	85.98	43.03	0.03%		2.0
13	1258.830	4.85E-005	1.53%	87.20	44.25	-0.92%		3.2
14	1399.450	2.15E-005	0.68%	89.03	46.08	2.28%		5.0
15	1454.060	4.55E-005	1.43%	89.69	46.74	-0.81%		5.7
16	1582.600	3.92E-005	1.23%	91.16	48.21	1.21%		7.2
17	1657.640	2.72E-005	0.86%	91.96	49.01	-0.23%		8.0
17	1690.590	2.74E-005	0.86%	92.30	49.35	1.76%		8.3
18	1753.710	3.76E-005	1.18%	92.94	49.99	-0.31%		8.9
19	1852.220	3.69E-005	1.16%	93.88	50.93	-0.25%		9.9
19	1884.420	3.68E-005	1.16%	94.18	51.23	1.48%		10.2
20	1949.130	3.74E-005	1.18%	94.77	51.81	-0.28%		10.8
21	2055.720	6.59E-005	2.07%	95.69	52.74	0.17%		11.7
21	2087.840	6.14E-005	1.93%	95.96	53.00	1.73%		12.0
22	2119.230	3.96E-005	1.24%	96.22	53.26	-1.43%		0.2
22	2185.080	4.23E-005 2.77E-005	1.33%	96.75	53.79	1.63%		0.7
23	2216.550 2250.440	3.06E-005	0.87% 0.96%	96.99 97.26	54.04	-1.39%		1.0
23 23	2281.930	2.85E-005	0.96%	97.26 97.50	54.30 54.54	0.12% 1.52%		1.3 1.5
23				97.50				
24	2313.760 2357.190	3.08E-005 4.24E-005	0.97% 1.33%	98.06	54.78 55.11	-1.35% 0.50%		1.7 2.1
24 25	2454.550	4.24E-005 4.04E-005	1.33%	98.76	55.81	0.50%		2.1
25 26	2509.270	4.04E-005 4.33E-005	1.27%	98.76 99.14	56.19	-1.25%		2.8 3.1
26	2562.870	6.09E-005	1.91%	99.14	56.55	0.86%		3.5
27	2659.260	5.17E-005	1.62%	100.15	50.55 57.19	0.86%		3.5 4.1
21	2059.200	5.17E-005	1.02%	100.15	57.19	0.78%	0.13%	4.1

Sound 7	Sound 7 Run – start										
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class			
•	97.513	2.73E-003	100.00%	42.91	0.00	0.00%	0.00%	6.9			
2	196.229	0.00175323	64.22%	55.02	12.11	0.62%					
3	299.162	0.00167897	61.50%	62.32	19.41	2.26%					
4	389.059	0.00036278	13.29%	66.87	23.96	-0.25%					
į	494.072	0.000156537	5.73%	71.01	28.09	1.34%					
(590.962	9.43E-005	3.45%	74.11	31.19	1.01%					
7		0.000236705	8.67%	76.76	33.85	0.92%					
3		0.000305923	11.21%	79.08	36.17	0.99%					
9		0.000178583	6.54%	81.51	38.60	3.28%					
10			2.31%	83.04	40.12	1.51%					
11			1.58%	83.97	41.05	-2.63%					
11			0.71%	84.68	41.76	1.45%					
12			1.65%	86.00	43.09	0.38%					
13			0.42%	87.35	44.43	0.17%					
13			0.92%	87.91	44.99	3.46%					
14			0.93%	88.76	45.85	0.92%					
15			0.57%	90.07	47.15	1.56%					
16			0.48%	90.79	47.88	-0.69%					
16			0.49%	91.28	48.36	2.12%					
17			0.66%	92.08	49.17	0.68%					
17			0.57%	92.39	49.48	2.51%					
18	1765.510	1.84E-005	0.68%	93.05	50.14	0.59%	0.11%	9.1			

Sound 8	Run – middle							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	97.042	0.00355363	100.00%	42.83	0.00	0.00%	0.00%	6.8
	194.471	0.00219792	61.85%	54.86	12.03	0.20%	0.06%	6.9
;	291.946	0.00107872	30.36%	61.90	19.07	0.28%	0.08%	1.9
4	388.616	0.00133256	37.50%	66.85	24.02	0.12%	0.03%	6.9
	494.561	0.00163476	46.00%	71.02	28.19	1.93%	0.47%	11.0
(591.776	0.00326277	91.82%	74.13	31.30	1.64%	0.38%	2.1
	688.473	0.00274311	77.19%	76.75	33.92	1.35%	0.30%	4.8

8	785.374	0.00143045	40.25%	79.03	36.20	1.16%	0.25%	7.0
9	881.949	0.00114016	32.08%	81.04	38.21	0.98%	0.21%	9.0
10	969.223	0.00124424	35.01%	82.67	39.84	-0.12%	-0.03%	10.7
11	1077.130	0.00147664	41.55%	84.50	41.67	0.91%	0.19%	0.5
12	1161.440	0.00147023	41.37%	85.80	42.97	-0.26%	-0.05%	1.8
13		0.000293477	8.26%	87.36	44.53	0.71%	0.14%	3.4
14	1356.520	0.000192	5.40%	88.49	45.66	-0.15%	-0.03%	4.5
15		0.000104232	2.93%	89.13	46.30	-3.29%	-0.65%	5.1
15		0.000143344	4.03%	89.81	46.98	0.55%	0.11%	5.8
16		0.000116272	3.27%	90.81	47.98	-0.11%	-0.02%	6.8
17	1657.520	8.01E-005	2.25%	91.96	49.13	0.47%	0.09%	8.0
18	1722.910	7.49E-005	2.11%	92.63	49.80	-1.37%	-0.26%	8.6
18	1754.470	7.57E-005	2.13%	92.95	50.12	0.44%	0.08%	8.9
19	1820.740	5.56E-005	1.56%	93.59	50.76	-1.25%	-0.23%	9.6
19	1852.930	6.30E-005	1.77%	93.89	51.06	0.50%	0.09%	9.9
20	1949.680	8.20E-005	2.31%	94.77	51.94	0.46%	0.08%	10.8
21	2015.480	6.74E-005	1.90%	95.35	52.52	-1.10%	-0.20%	11.3
21	2054.340	7.57E-005	2.13%	95.68	52.85	0.81%	0.15%	11.7
22	2111.370	7.12E-005	2.00%	96.15	53.32	-1.10%	-0.20%	0.2
23	2208.600	6.04E-005	1.70%	96.93	54.10	-1.05%	-0.19%	0.9
23	2248.810	6.83E-005	1.92%	97.24	54.41	0.75%	0.13%	1.2
24		0.000105003	2.95%	97.74	54.91	-0.66%	-0.12%	1.7
24		0.000102292	2.88%	97.98	55.15	0.74%	0.13%	2.0
25		0.000125134	3.52%	98.44	55.61	-0.68%	-0.12%	2.4
25	2444.390		3.58%	98.69	55.86	0.76%	0.13%	2.7
26		0.000215305	6.06%	99.13	56.30	-0.59%	-0.10%	3.1
26		0.000128007	3.60%	99.51	56.68	1.60%	0.28%	3.5
27	2606.850	0.000236364	6.65%	99.80	56.97	-0.51%	-0.09%	3.8

Sound 9	Run – end							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental		Diversion (Pitch)	
1	86.150		100.00%	40.77	0.00	0.00%		
2		1.40E-003	55.77%	52.74	11.97	-0.17%		
3		0.000916049	36.57%	59.68	18.91	-0.64%		
4		0.000792158	31.63%	64.28	23.51	-2.80%		
5		0.000566628	22.62%	68.17	27.41	-2.61%		
6		0.000637533	25.45%	71.44	30.67	-2.01%		
7		0.000588271	23.49%	74.47	33.70	0.05%		
3		0.000293262	11.71%	77.01	36.24	1.42%		
9		0.000166291	6.64%	79.02	38.25	1.22%	0.27%	
10		0.000195404	7.80%	80.83	40.06	1.15%	0.25%	
11		0.000124209	4.96%	82.48	41.71	1.12%	0.23%	
12		0.000163276	6.52%	83.96	43.19	0.97%	0.20%	
13		0.000120266	4.80%	85.19	44.42	0.09%	0.02%	
14			3.52%	86.77	46.00	1.82%		
15			3.93%	87.79	47.02	0.78%		
16		0.000108206	4.32%	88.23	47.46	-3.05%		
16		0.000210104	8.39%	89.03	48.27	1.55%		
17		0.000118533	4.73%	89.83	49.06	0.06%		
18			3.01%	90.92	50.15	0.63%		
19			1.10%	91.97	51.20	1.30%		
20			1.78%	92.64	51.87	0.06%		
21			0.68%	93.57	52.80	0.53%		
22			1.36%	94.29	53.52	0.06%		
23			0.89%	95.05	54.28	0.01%		
24			1.39%	95.80	55.03	0.05%		
25			0.88%	96.40	55.63	-0.54%		
26			0.65%	97.16	56.39	-0.06%		
27			0.68%	97.83	57.06	0.02%		
27		1.86E-005	0.74%	98.07	57.30	1.41%	0.25%	
28		2.54E-005	1.01%	98.45	57.69	-0.01%	0.00%	
29		1.40E-005	0.56%	98.98	58.21	-0.47%		
29		1.25E-005	0.50%	99.30	58.53	1.37%		
30		2.90E-005	1.16%	99.64	58.88	-0.04%		
31			0.70%	100.08	59.31	-0.80%		
32	2733.430	2.19E-005	0.88%	100.62	59.85	-0.85%	-0.15%	4.6

Sound 10	Sound 10 But – start											
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class				
1	21.509	0.00153419	100.00%	16.75	0.00	0.00%	0.00%					
5	98.216	0.00253988	165.55%	43.04	26.29	-8.68%	-3.52%	7.0				
10	205.227	0.00155979	101.67%	55.80	39.05	-4.59%	-1.44%	7.8				
15	322.536	0.00112048	73.03%	63.62	46.88	-0.03%	-0.01%					
22	462.916	0.00192395	125.40%	69.88	53.13	-2.17%	-0.54%	9.9				
24	517.181	0.00151587	98.81%	71.80	55.05	0.19%	0.04%	11.8				
27	591.404	0.000880799	57.41%	74.12	57.37	1.84%	0.43%	2.1				
33	720.399	0.000434158	28.30%	77.54	60.79	1.49%	0.33%					
38	817.928	0.000438179	28.56%	79.73	62.99	0.07%	0.02%	7.7				
40	851.734	0.000357704	23.32%	80.43	63.69	-1.00%	-0.22%	8.4				
43	915.273	0.000615953	40.15%	81.68	64.93	-1.04%	-0.22%	9.7				
45	958.007	0.000742898	48.42%	82.47	65.72	-1.02%	-0.22%	10.5				
47	1012.170	0.00104396	68.05%	83.42	66.68	0.12%	0.03%	11.4				
52	1109.070	0.000240342	15.67%	85.01	68.26	-0.84%	-0.17%	1.0				
54	1152.400	0.000200912	13.10%	85.67	68.92	-0.78%	-0.16%					
57	1215.410	0.000139625	9.10%	86.59	69.84	-0.87%	-0.17%					
59	1270.080	8.22E-005	5.36%	87.35	70.61	0.08%	0.02%	3.4				
61	1313.150	7.61E-005	4.96%	87.93	71.18	0.08%	0.02%	3.9				
64	1367.560	7.09E-005	4.62%	88.63	71.89	-0.66%	-0.13%	4.6				

66	1409.610	5.33E-005	3.47%	89.16	72.41	-0.70%	-0.14%	5.2
68	1464.460	6.49E-005	4.23%	89.82	73.07	0.13%	0.02%	5.8
70	1505.900	3.03E-005	1.98%	90.30	73.55	0.02%	0.00%	6.3
73	1561.340	4.67E-005	3.04%	90.93	74.18	-0.56%	-0.11%	6.9
74	1601.450	2.48E-005	1.62%	91.37	74.62	0.61%	0.12%	7.4
77	1658.180	4.68E-005	3.05%	91.97	75.22	0.12%	0.02%	8.0
82	1754.670	4.23E-005	2.76%	92.95	76.20	-0.51%	-0.10%	8.9
86	1851.570	3.80E-005	2.48%	93.88	77.13	0.10%	0.02%	9.9
91	1948.570	3.11E-005	2.03%	94.76	78.02	-0.45%	-0.08%	10.8
92	1981.470	2.72E-005	1.77%	95.05	78.31	0.13%	0.02%	11.1
97	2078.440	3.23E-005	2.11%	95.88	79.13	-0.38%	-0.07%	11.9
101	2174.830	3.48E-005	2.27%	96.66	79.92	0.11%	0.02%	0.7
106	2271.750	4.38E-005	2.86%	97.42	80.67	-0.36%	-0.06%	1.4
110	2368.470	5.97E-005	3.89%	98.14	81.39	0.10%	0.02%	2.1
115	2466.370	9.51E-005	6.20%	98.84	82.10	-0.29%	-0.05%	2.8
120	2573.430	0.000178832	11.66%	99.58	82.83	-0.30%	-0.05%	3.6

Sound 11	But – middle							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental		Diversion (Pitch)	
1	87.084	0.00230012	100.00%	40.96	0.00	0.00%		5.0
2		0.00153401	66.69%	52.93	11.97	-0.16%		4.9
3		0.00071957	31.28%	59.93	18.98	-0.24%		11.9
4		0.00102019	44.35%	65.21	24.26	1.50%		5.2
5		0.000943016	41.00%	69.00	28.04	1.06%		9.0
6		0.00267993	116.51%	72.16	31.20	1.07%		0.2
7		0.00327207	142.26%	74.79	33.83	0.83%		2.8
8		0.00155416	67.57%	77.06	36.10	0.60%		5.1
9		0.00121391	52.78%	79.08	38.12	0.47%		7.1
10		0.00123476	53.68%	80.88	39.93	0.36%		8.9
11		0.00208777	90.77%	82.66	41.70	1.11%		10.7
12		0.00240145	104.41%	84.14	43.19	0.96%		0.1
13		0.000509992	22.17%	85.50	44.54	0.78%		1.5
14		0.000256227	11.14%	86.76	45.80	0.65%		
15		0.000153248	6.66%	87.94	46.98	0.58%		3.9
16			4.37%	89.04	48.09	0.50%		5.0
17		8.58E-005	3.73%	90.08	49.12	0.42%		
18		6.57E-005	2.85%	91.06	50.10	0.36%		
19		4.62E-005	2.01%	91.97	51.02	0.25%		
20		4.58E-005	1.99%	92.94	51.99	0.71%		
21		4.09E-005	1.78%	93.77	52.82	0.64%		
22		4.32E-005	1.88%	94.57	53.61	0.57%		
23		3.83E-005	1.66%	95.33	54.37	0.51%		
24		4.26E-005	1.85%	96.05	55.10	0.45%		0.1
25		4.56E-005	1.98%	96.75	55.80	0.41%		
26		5.04E-005	2.19%	97.42	56.47	0.36%		
27		5.97E-005	2.60%	98.07	57.12	0.34%		
28		8.53E-005	3.71%	98.75	57.79	0.60%		
29		0.00013172	5.73%	99.35	58.39	0.56%		
30		0.000213185	9.27%	99.93	58.97	0.52%		3.9
31		0.000289782	12.60%	100.49	59.54	0.51%		4.5
32		0.000215336	9.36%	101.09	60.14	0.79%		5.1
33		0.000292377	12.71%	101.62	60.66	0.76%		5.6
34		0.000173034	7.52%	101.93	60.98	-0.41%		5.9
34	2981.400	0.000217572	9.46%	102.12	61.17	0.69%	0.12%	6.1

Sound 12	Sound 12 But – end										
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class			
1		0.000539545	100.00%	40.73	0.00	0.00%					
2		0.000485343	89.95%	53.76	13.04	6.18%					
3		0.000265392	49.19%	59.72	18.99	-0.14%					
4		0.000208682	38.68%	65.27	24.54	3.18%					
5		0.000239425	44.38%	68.62	27.89	0.15%					
6		0.000552207	102.35%	72.49	31.76	4.40%					
7		0.000802156	148.67%	73.79	33.06	-3.56%					
7		0.000794186	147.20%	74.76	34.03	2.00%					
9		0.000250491	46.43%	78.27	37.55	-2.81%					
9		0.000179458	33.26%	79.27	38.54	2.95%					
10			27.06%	80.41	39.68	-1.03%					
11		0.000166177	30.80%	81.89	41.16	-2.00%					
11		0.000131061	24.29%	82.72	41.99	2.82%					
12		0.000237988	44.11%	83.78	43.05	0.17%					
13		0.000602908	111.74%	85.16	44.43	0.14%					
15			9.11%	87.24	46.51	-2.12%					
15		4.85E-005	8.99%	87.64	46.91	0.17%					
16		2.58E-005	4.77%	88.51	47.79	-1.22%					
17		2.13E-005	3.94%	89.58	48.85	-1.15%					
18		1.29E-005	2.39%	90.70	49.97	-0.38%					
18		1.54E-005	2.85%	91.16	50.43	2.28%					
19		1.23E-005	2.27%	91.95	51.22	1.44%					
20 21		1.18E-005	2.19%	92.63	51.91	0.27%					
21	1764.240 1839.540	1.15E-005 1.18E-005	2.12%	93.04	52.32	-2.24% 1.93%					
21		1.18E-005	2.19% 1.91%	93.77 94.38	53.04 53.66						
23		1.03E-005	2.30%	95.34	53.66	0.83% 1.90%					
23 24		1.24E-005 1.04E-005	1.92%	95.3 4 95.97	55.24	1.30%					
26		1.51E-005	2.81%	96.83	56.10	-1.72%					
27		1.50E-005	2.79%	97.51	56.79	-1.72%					
28		2.31E-005	4.28%	98.22	56.79 57.49	-1.13%					
20	2370.940	2.310-005	4.20%	90.22	57.49	-1.13%	-0.20%	2.2			

29	2455.640	2.23E-005	4.14%	98.77	58.04	-1.46%	-0.26%	2.8
30	2563.200	1.39E-005	2.57%	99.51	58.78	-0.58%	-0.10%	3.5
31	2627.150	1.19E-005	2.20%	99.94	59.21	-1.38%	-0.24%	3.9
32	2766.640	2.49E-005	1.08%	100.83	59.87	-0.72%	-0.12%	4.8

	You 2 – start							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental		Diversion (Pitch)	
1	97.481	0.00216173	100.00%	42.91	0.00	0.00%		
2		0.0012017	55.59%	54.90	11.99	-0.05%		
3		0.000570167	26.38%	61.89	18.99	-0.20%		
4		1.05E-004	4.85%	66.86	23.95	-0.29%		
5		7.93E-005	3.67%	70.74	27.83	-0.21%		
6		1.09E-005	0.50%	73.88	30.97	-0.30%		
7		2.21E-005	1.02%	76.52	33.62	-0.42%		
8		1.04E-005	0.48%	79.08	36.17	1.00%		
21		7.91E-006	0.37%	95.59	52.69	-0.12%		
22		1.19E-005	0.55%	96.40	53.49	-0.12%		
23		2.46E-005	1.14%	97.17	54.26	-0.13%		
24		1.27E-005	0.59%	97.57	54.66	-2.04%		
24		2.64E-005	1.22%	97.89	54.98	-0.21%		
25		1.25E-005	0.58%	98.61	55.70	-0.13%		
26		9.35E-006	0.43%	98.99	56.08	-1.85%		
26		1.08E-005	0.50%	99.28	56.38	-0.17%		
27		1.08E-005	0.50%	99.94	57.03	-0.15%		
28		1.89E-005	0.87%	100.62	57.71	0.13%		
28		1.17E-005	0.54%	100.85	57.94	1.47%		
29		1.89E-005	0.88%	101.23	58.32	0.14%		
29		1.39E-005	0.64%	101.44	58.54	1.40%		
30		3.65E-005	1.69%	101.81	58.90	0.10%		
30		3.03E-005	1.40%	102.06	59.16	1.59%		
31		5.40E-005	2.50%	102.38	59.47	0.11%		
32		6.26E-005	2.90%	102.92 103.45	60.01	0.08%		
33		0.000132721	6.14% 6.60%	103.45	60.54	0.05% 0.03%		
34 35		0.000142776 0.000137691	6.37%	104.52	61.06 61.61	0.03%		
36		9.78E-005	4.52%	104.80	61.89	-0.87%		
37		9.76E-005 5.18E-005	2.40%	105.31	62.40	-0.66%		
		3.37E-005	1.56%	105.46				
37 37		3.37E-005 3.21E-005	1.48%	105.46	62.55 62.71	0.22% 1.17%		
38		2.42E-005	1.48%	105.62	63.02	0.27%		
38		1.02E-005	0.47%	105.93	63.02	-1.19%		
39	3812.190	1.53E-005	0.71%	106.38	63.47	0.27%	0.04%	10.4

Sound 14	Sound 14 You 2 – middle											
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class				
1	97.934	0.00343545	100.00%	42.99	0.00	0.00%						
2		0.00250628	72.95%	55.53	12.54	3.19%						
3		0.00155216	45.18%	62.36	19.37	2.04%						
4			9.27%	67.27	24.29	1.67%						
5			3.25%	71.07	28.08	1.25%						
6		2.50E-005	0.73%	74.15	31.16	0.84%						
7		6.03E-005	1.75%	77.01	34.03	1.97%		5.0				
8		1.97E-005	0.57%	79.52	36.53	3.11%						
9		2.41E-005	0.70%	81.28	38.29	1.49%						
11		1.24E-005	0.36%	84.66	41.67	0.94%						
13		1.28E-005	0.37%	87.64	44.65	1.44%						
15		1.33E-005	0.39%	89.82	46.83	-0.32%						
15			0.41%	90.43	47.44	3.28%						
17			0.74%	92.42	49.43	2.21%						
18			0.70%	93.49	50.50	2.72%						
19			1.40%	94.39	51.40	2.49%						
20			1.01%	94.74	51.76	-0.62%						
20			1.99%	95.25	52.26	2.31%						
22		0.000137078	3.99%	96.14	53.15	-2.05%						
23		0.000172709	5.03%	96.92	53.94	-1.98%						
23			2.32%	97.34	54.35	0.40%						
24		0.000118478	3.45%	97.92	54.93	-0.52%		1.9				
24		0.000124137	3.61%	98.30	55.31	1.71%						
25			1.53%	98.90	55.92	1.10%						
26		0.000189347	5.51%	99.35	56.36	-0.25%						
27			1.61%	99.80	56.81	-1.44%						
27			2.56%	100.01	57.03	-0.19%						
28			2.46%	100.64	57.65	-0.21%						
29			1.71%	101.09	58.10	-1.13%						
30		5.16E-005	1.50%	101.68	58.69	-1.09%						
30		4.99E-005	1.45%	101.87	58.89	0.02%						
31		7.58E-005	2.21%	102.25	59.26	-1.07%						
31		7.21E-005	2.10%	102.44	59.45	0.01%						
32		5.24E-005	1.52%	102.99	60.00	0.00%						
32	3166.830	6.72E-005	1.96%	103.17	60.18	1.05%	0.18%	7.2				

Soun	<u>ıa 15</u>	You 2 – end							
N	HN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	1	96.010	0.00264835	100.00%	42.65	0.00	0.00%	0.00%	6.6
	2	191.826	1.93E-003	73.00%	54.63	11.98	-0.10%	-0.03%	6.6

3	282.436	0.00180197	68.04%	61.33	18.68	-1.94%	-0.55%	1.3
4	378.779	0.000261247	9.86%	66.41	23.76	-1.37%	-0.36%	6.4
5	474.581	0.000116449	4.40%	70.31	27.66	-1.14%	-0.28%	10.3
6	570.818	2.26E-005	0.85%	73.51	30.86	-0.91%	-0.21%	1.5
7	667.091	5.62E-005	2.12%	76.20	33.56	-0.74%	-0.17%	4.2
8	762.675	2.45E-005	0.92%	78.52	35.88	-0.70%	-0.16%	6.5
9	859.016	3.43E-005	1.30%	80.58	37.94	-0.59%	-0.13%	8.6
10	949.181	1.82E-005	0.69%	82.31	39.67	-1.14%	-0.24%	10.3
11	1045.200	1.85E-005	0.70%	83.98	41.33	-1.03%	-0.21%	12.0
12	1141.760	1.87E-005	0.71%	85.51	42.86	-0.90%	-0.18%	1.5
13	1237.230	1.28E-005	0.48%	86.90	44.25	-0.87%	-0.17%	2.9
14	1333.550	2.06E-005	0.78%	88.20	45.55	-0.79%	-0.15%	4.2
15	1422.270	1.28E-005	0.48%	89.31	46.67	-1.24%	-0.24%	5.3
16	1519.050	4.87E-005	1.84%	90.45	47.81	-1.11%	-0.21%	6.5
17	1612.640	3.62E-005	1.37%	91.49	48.84	-1.20%	-0.23%	7.5
17	1647.020	1.26E-005	0.48%	91.85	49.21	0.91%	0.17%	7.9
18	1710.050	9.65E-005	3.64%	92.50	49.86	-1.05%	-0.20%	8.5
19		0.000108895	4.11%	93.38	50.74	-1.37%	-0.25%	9.4
20		0.000105348	3.98%	94.38	51.73	-0.75%	-0.14%	10.4
21	1993.810	7.37E-005	2.78%	95.16	52.51	-1.11%	-0.20%	11.2
22	2089.570	5.19E-005	1.96%	95.97	53.33	-1.07%	-0.19%	12.0
23		0.000109466	4.13%	96.76	54.11	-0.98%	-0.18%	8.0
24	2281.870	3.76E-005	1.42%	97.50	54.85	-0.97%	-0.17%	1.5
25	2380.030	3.89E-005	1.47%	98.22	55.58	-0.84%	-0.15%	2.2
27	2573.140	1.36E-005	0.51%	99.58	56.93	-0.74%	-0.13%	3.6
30	2853.190	1.28E-005	0.48%	101.36	58.72	-0.94%	-0.16%	5.4
31	2949.020	1.10E-005	0.41%	101.94	59.29	-0.92%	-0.16%	5.9
32	3046.210	2.79E-005	1.06%	102.50	59.85	-0.85%	-0.14%	6.5
33	3133.950	2.85E-005	1.08%	102.99	60.34	-1.08%	-0.18%	7.0
33	3208.780	1.74E-005	0.66%	103.40	60.75	1.28%	0.21%	7.4
35	3326.670	1.45E-005	0.55%	104.02	61.38	-1.00%	-0.17%	8.0
36	3423.160	1.49E-005	0.56%	104.52	61.87	-0.96%	-0.16%	8.5
67	6417.090	1.30E-005	0.49%	115.40	72.75	-0.24%	-0.04%	7.4

	Can't – start							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental		Diversion (Pitch)	
1	41.962		100.00%	28.32	0.00	0.00%		4.3
2	86.749	6.16E-004	83.29%	40.89	12.57	3.37%		
4	171.790		27.11%	52.72	24.40	2.35%		
6	271.346	5.11E-005	6.91%	60.63	32.32	7.77%		
8	342.531	6.42E-005	8.68%	64.66	36.35	2.04%		
9	397.499	1.13E-004	15.33%	67.24	38.93	5.25%		
11		0.000101637	13.74%	70.31	41.99	2.79%		
12		0.000135951	18.38%	71.71	43.39	2.18%		
14	581.120		11.25%	73.82	45.50	-1.08%		
15	615.672		11.24%	74.82	46.50	-2.19%		
16		0.000132505	17.91%	76.18	47.87	-0.76%		
17		0.000182204	24.63%	77.79	49.47	2.46%		
19	784.128	7.72E-005	10.43%	79.00	50.69	-1.65%		
21		0.000385998	52.18%	80.82	52.50	-1.18%		
22		0.000360671	48.76%	81.49	53.18	-1.92%		
23	968.686	0.00065148	88.07%	82.66	54.35	0.37%		
25		0.000747442	101.05%	84.11	55.80	0.40%		
26	1097.790	5.26E-004	71.17%	84.83	56.51	0.62%		
28		0.000276055	37.32%	85.82	57.50	-1.06%		
30	1239.970	1.04E-004	14.11%	86.94	58.62	-1.50%		
31	1293.350		13.23%	87.67	59.35	-0.57%		
32	1323.930	8.16E-005	11.03%	88.07	59.76	-1.40%		
33	1385.850	5.61E-005	7.59%	88.86	60.55	0.08%		
35	1482.840	8.24E-005	11.13%	90.03	61.72	0.96%		
36	1518.650	5.57E-005	7.54%	90.45	62.13	0.53%		
39	1624.820	1.68E-005	2.27%	91.62	63.30	-0.72%		
40	1668.540	1.88E-005	2.54%	92.08	63.76	-0.59%		8.1
41	1711.080	1.33E-005	1.80%	92.51	64.20	-0.54%		
42	1764.120	1.73E-005	2.33%	93.04	64.72	0.10%		9.0
44	1841.190	3.05E-005	4.12%	93.78	65.46	-0.28%		9.8
47	1968.700	3.38E-005	4.57%	94.94	66.62	-0.18%		10.9
48	2024.380	2.24E-005	3.03%	95.42	67.11	0.51%		11.4
50	2091.650	2.54E-005	3.43%	95.99	67.67	-0.31%		12.0
51	2151.810	1.58E-005	2.14%	96.48	68.16	0.55%		0.5
52	2186.180	2.24E-005	3.03%	96.75	68.44	0.19%	0.03%	0.8

Sound 17	Can't – middle	1						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	1 116.989	0.003814	100.00%	46.07	0.00	0.00%	0.00%	10.1
	2 228.230	0.0023323	61.15%	57.64	11.57	-2.46%	-0.74%	9.6
	3 345.405	0.0016489	43.23%	64.81	18.74	-1.58%	-0.42%	4.8
	4 462.469	0.00247413	64.87%	69.86	23.80	-1.17%	-0.29%	9.9
	5 580.944	0.00582024	152.60%	73.81	27.74	-0.68%	-0.16%	1.8
	6 699.028	0.00427673	112.13%	77.01	30.95	-0.41%	-0.09%	5.0
	7 817.818	0.00517126	135.59%	79.73	33.66	-0.13%	-0.03%	7.7
	8 926.723	0.0047238	123.85%	81.90	35.83	-0.98%	-0.21%	9.9
	9 1012.300	0.000948935	24.88%	83.42	37.36	-3.86%	-0.81%	11.4
	10 1152.410	0.000427328	11.20%	85.67	39.60	-1.49%	-0.30%	1.7
	11 1270.430	0.000206842	5.42%	87.36	41.29	-1.28%	-0.25%	3.4
	12 1399.680	0.000166948	4.38%	89.03	42.97	-0.30%	-0.06%	5.0
	13 1507.440	0.000122831	3.22%	90.32	44.25	-0.88%	-0.17%	6.3
	14 1592.340	0.000104748	2.75%	91.27	45.20	-2.78%	-0.53%	7.3

14	1626.030 0.000103464	2.71%	91.63	45.56	-0.72%	-0.14%	7.6
15	1743.950 0.000110509	2.90%	92.84	46.77	-0.62%	-0.12%	8.8
16	1821.190 0.000132285	3.47%	93.59	47.53	-2.71%	-0.50%	9.6
16	1885.250 0.000144563	3.79%	94.19	48.12	0.72%	0.13%	10.2
17	1938.650 0.000167765	4.40%	94.67	48.61	-2.52%	-0.46%	10.7
17	1970.830 1.82E-004	4.77%	94.96	48.89	-0.90%	-0.17%	11.0
17	2000.520 0.000190975	5.01%	95.22	49.15	0.59%	0.11%	11.2
18	2056.080 0.000199158	5.22%	95.69	49.63	-2.36%	-0.43%	11.7
18	2088.020 0.000158675	4.16%	95.96	49.89	-0.84%	-0.15%	12.0
19	2174.600 9.99E-005	2.62%	96.66	50.60	-2.17%	-0.39%	0.7
19	2229.510 8.84E-005	2.32%	97.09	51.03	0.30%	0.05%	1.1
19	2262.070 8.92E-005	2.34%	97.34	51.28	1.77%	0.31%	1.3
20	2293.590 1.03E-004	2.71%	97.58	51.52	-1.97%	-0.35%	1.6
20	2346.360 0.000147296	3.86%	97.98	51.91	0.28%	0.05%	2.0
20	2379.740 0.000165645	4.34%	98.22	52.16	1.71%	0.30%	2.2
21	2412.300 0.000131572	3.45%	98.46	52.39	-1.81%	-0.32%	2.5
21	2456.750 0.000123842	3.25%	98.77	52.71	0.00%	0.00%	2.8
21	2498.140 0.000103838	2.72%	99.06	53.00	1.68%	0.29%	3.1
22	2572.700 5.73E-005	1.50%	99.57	53.51	-0.04%	-0.01%	3.6
22	2604.070 5.75E-005	1.51%	99.78	53.72	1.18%	0.20%	3.8
23	2638.230 3.93E-005	1.03%	100.01	53.94	-1.95%	-0.34%	4.0

Sound 18	Can't – end							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
1	107.048	0.00327996	100.00%	44.53	0.00	0.00%		
2	214.228	0.00182347	55.59%	56.54	12.01	0.06%		
3	321.390	0.00123358	37.61%	63.56	19.03	0.08%		
4	428.413	0.00137403	41.89%	68.54	24.01	0.05%		
5	535.642	0.00275935	84.13%	72.41	27.88	0.08%		
6	636.733	0.0023042	70.25%	75.40	30.87	-0.86%		
7	744.120	0.00141186	43.05%	78.10	33.57	-0.70%		
8	851.271	0.00100979	30.79%	80.43	35.90	-0.60%		
9	959.617		53.39%	82.50	37.97	-0.40%		
10	1076.230	0.00191769	58.47%	84.48	39.96	0.54%		
11	1182.930		33.46%	86.12	41.59	0.46%		
12		0.000441152	13.45%	87.50	42.97	-0.26%		
13		0.000268796	8.20%	88.87	44.35	-0.35%		
14		0.000208253	6.35%	90.10	45.57	-0.69%		
15		0.000170693	5.20%	91.30	46.77	-0.66%		
16	1702.230		3.87%	92.42	47.89	-0.62%		
17			4.47%	93.48	48.95	-0.57%		
18		1.64E-004	4.99%	94.48	49.95	-0.54%		
19 20	2130.710	0.000196562 8.02E-005	5.99%	95.42 96.31	50.89 51.78	-0.47%		
20	2238.640	7.46E-005	2.44% 2.27%	97.16	51.78	-0.48% -0.42%		
22	2344.680	7.46E-005	2.27%	97.16	53.44	-0.44%		
23	2452.480	8.90E-005	2.30%	98.74	53.44	-0.39%		
24	2553.700	8.22E-005	2.51%	99.44	54.92	-0.60%		
25	2660.860	1.16E-004	3.52%	100.16	55.63	-0.57%		
26	2767.470	6.17E-005	1.88%	100.10	56.31	-0.57%		
27		8.78E-005	2.68%	101.49	56.96	-0.55%		
28	2973.140	6.94E-005	2.12%	102.08	57.55	-0.81%		
29		9.92E-005	3.02%	102.74	58.21	-0.51%		
30		0.000104684	3.19%	103.29	58.76	-0.72%		
31	3305.270	1.53E-004	4.66%	103.91	59.38	-0.40%		
32		0.000188969	5.76%	104.47	59.94	-0.34%		
33			2.65%	104.95	60.42	-0.64%		
34			2.52%	105.47	60.94	-0.65%		
35	3717.220		1.67%	105.94	61.41	-0.79%		

Sound 19	Hide – start							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI#)	Interval from Fundamental			Pitch Class
1	117.334	2.08E-003	100.00%	46.12	0.00	0.00%		10.1
2		0.000548444	26.40%	57.40	11.28	-4.05%		9.4
		0.000563348	27.11%	64.73	18.61	-2.33%		4.7
3		0.000252072	12.13%	67.76	21.65	16.39%		7.8
4		0.000418682	20.15%	69.89	23.77	-1.33%		
4		0.000403695	19.43%	71.80	25.68	10.18%		11.8
5		0.000576791	27.76%	74.15	28.03	0.96%		2.1
	634.950		29.52%	75.35	29.23	8.23%		3.3
6		7.19E-004	34.60%	77.03	30.92	-0.60%		5.0
6		1.23E-003	58.98%	78.09	31.97	5.63%		6.1
7	808.512		40.13%	79.53	33.42	-1.56%		7.5
7	861.113	1.56E-003	74.99%	80.62	34.51	4.84%		8.6
8		1.45E-003	69.99%	82.66	36.54	3.19%		10.7
9			30.76%	83.75	37.63	-2.32%		11.8
9			72.68%	84.67	38.55	2.99%		0.7
10		1.37E-003	65.98%	86.45	40.33	2.76%		2.5
11		1.06E-003	51.06%	87.93	41.82	1.77%		3.9
12			14.06%	88.78	42.66	-2.06%		4.8
12			30.81%	89.56	43.44	2.45%		5.6
13		3.14E-004	15.09%	90.82	44.70	1.72%		6.8
14		0.000133417	6.42%	91.40	45.28	-2.32%		7.4
14		2.52E-004	12.12%	92.07	45.95	1.54%		8.1
15		1.16E-004	5.59%	93.16	47.04	0.91%		9.2
16			4.72%	93.66	47.55	-2.59%		9.7
16		1.34E-004	6.46%	94.19	48.07	0.40%		10.2
17	1969.950	9.06E-005	4.36%	94.95	48.83	-1.24%	-0.23%	11.0

17	2002.260	8.45E-005	4.07%	95.23	49.12	0.38%	0.07%	11.2
18	2088.370	1.08E-004	5.20%	95.96	49.84	-1.12%	-0.20%	12.0
19	2195.540	0.000139655	6.72%	96.83	50.71	-1.52%	-0.27%	0.8
20	2303.520	0.000204941	9.86%	97.66	51.54	-1.84%	-0.33%	1.7
20	2377.860	8.78E-005	4.23%	98.21	52.09	1.33%	0.23%	2.2
21	2431.640	0.00014461	6.96%	98.60	52.48	-1.31%	-0.23%	2.6
21	2478.490	4.81E-005	2.32%	98.93	52.81	0.59%	0.10%	2.9
22	2529.270	1.19E-004	5.71%	99.28	53.16	-2.02%	-0.35%	3.3
22	2636.300	1.69E-004	8.13%	100.00	53.88	2.13%	0.37%	4.0

	Hide – middle							
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental		Diversion (Pitch)	
1	87.336	2.48E-003	100.00%	41.01	0.00	0.00%	0.00%	
2		0.00140163	56.47%	52.95	11.95	-0.31%	-0.10%	
3	267.349	5.67E-004	22.86%	60.37	19.37	2.04%		
4	354.731	7.41E-004	29.86%	65.27	24.26	1.54%		
5	441.507	6.33E-004	25.49%	69.06	28.05	1.11%	0.28%	
6	528.010	9.42E-004	37.96%	72.16	31.15	0.76%		
7		1.71E-003	68.85%	74.77	33.76	0.44%		
8	700.226	2.99E-003	120.58%	77.04	36.04	0.22%		
9	796.342		82.77%	79.27	38.26	1.31%		7.3
10	882.817	1.40E-003	56.45%	81.06	40.05	1.08%		
11	979.088	6.12E-004	24.66%	82.85	41.84	1.91%		
12		4.47E-004	18.01%	84.33	43.32	1.78%		
13		0.000410507	16.54%	85.68	44.67	1.56%		
14			18.66%	87.07	46.06	2.20%		
15		0.000391491	15.77%	88.23	47.22	2.00%		
16		0.000405248	16.33%	89.03	48.03	0.15%		
16		0.000457697	18.44%	89.44	48.44	2.56%		
17			27.69%	90.17	49.16	0.64%		
17			22.88%	90.55	49.55	2.93%		
18	1582.980		23.71%	91.16	50.16	0.70%		
19	1678.610		21.45%	92.18	51.17	1.16%		8.2
20			15.10%	93.05	52.05	1.08%		
21	1852.440		22.38%	93.89	52.88	1.00%		
22		0.000438637	17.67%	94.67	53.66	0.87%		
23		0.000364209	14.67%	95.15	54.15	-0.78%		
23		0.000410497	16.54%	95.42	54.41	0.76%		
24		0.00024831	10.00%	95.89	54.88	-0.79%		
24		0.000275372	11.10%	96.23	55.22	1.17%		
25		0.000251056	10.12%	96.60	55.59	-0.78%		
25		0.000389633	15.70%	96.92	55.91	1.07%		
26		0.000228698	9.21%	97.28	56.27	-0.76%		
26		0.000340464	13.72%	97.58	56.58	1.00%		
27		0.000440098	17.73%	98.22	57.21	0.89%		
28		0.000331688	13.36%	98.84	57.83	0.82%	0.14%	2.8
29	2551.230	0.000316323	12.75%	99.43	58.42	0.73%	0.13%	3.4

NHN Frequency Amplitude Amp Ratio Pitch (MIDI #) Interval from Fundamental Diversion (Hz) Diversion (Pitch) Pit 1 20.648 6.36E-005 100.00% 16.04 0.00 0.00% 0.00% 0.00% 4 84.548 0.00158347 2490.01% 40.44 24.41 2.37% 1.01% 8 163.149 0.000814524 1280.84% 51.82 35.79 -1.23% -0.41%	4.0 4.4 3.8 11.0 3.7
4 84.548 0.00158347 2490.01% 40.44 24.41 2.37% 1.01%	4.4 3.8 11.0
	3.8 11.0
8 163.149 0.000814524 1280.84% 51.82 35.79 -1.23% -0.41%	11.0
12 246.380 0.000455861 716.84% 58.96 42.92 -0.56% -0.17%	3 7
16 324.571 0.00039165 615.87% 63.73 47.69 -1.76% -0.48%	
20 408.283 0.000566176 890.31% 67.70 51.67 -1.13% -0.29%	7.7
23 483.861 0.000863375 1357.66% 70.65 54.61 1.89% 0.46%	10.6
28 570.253 0.000452105 710.94% 73.49 57.45 -1.37% -0.32%	1.5
32 656.322 0.000217583 342.15% 75.92 59.88 -0.67% -0.15%	3.9
34 699.908 9.21E-005 144.82% 77.04 61.00 -0.30% -0.07%	5.0
36 734.025 0.000149454 235.02% 77.86 61.82 -1.25% -0.28%	5.9
40 817.569 8.37E-005 131.60% 79.73 63.69 -1.01% -0.22%	7.7
43 893.809 4.56E-005 71.75% 81.27 65.23 0.67% 0.14%	9.3
48 981.185 3.08E-005 48.48% 82.88 66.85 -1.00% -0.21%	10.9
52 1065.430 3.83E-005 60.19% 84.31 68.27 -0.77% -0.16%	0.3
56 1151,300 2.86E-005 45.04% 85.65 69.61 -0.43% -0.09%	1.7
59 1228 420 3.08E-005 48.38% 86.77 70.74 0.84% 0.17%	2.8
64 1312.400 2.02E-005 31.75% 87.92 71.88 -0.69% -0.14% 67 1390.400 2.02E-005 31.75% 88.92 72.88 0.50% 0.10%	3.9 4.9
67 1390.400 2.02E-005 31.75% 88.92 72.88 0.50% 0.10% 72 1484.220 2.45E-005 38.60% 90.05 74.01 -0.16% -0.03%	4.9 6.0
72 1484.220 2.45E-005 38.60% 90.05 74.01 -0.16% -0.05% 75 1552.560 2.39E-005 37.65% 90.83 74.79 0.26% 0.05%	6.8
79 1637.460 2.67E-005 42.06% 91.75 75.71 0.38% 0.07%	7.8
79 1637.400 2.67E-003 42.05% 91.75 75.71 0.38% 0.07% 84 1724.490 3.20E-005 50.39% 92.65 76.61 -0.57% -0.11%	7.6 8.6
87 1799.530 3.46E-005 54.40% 93.38 77.35 0.18% 0.03%	9.4
89 1843.730 3.41-005 16.86% 93.80 77.77 0.33% 0.06%	9.8
91 1884.980 2.35E-005 36.92% 94.19 78.15 0.32% 0.06%	10.2
95 1969.270 2.87E-005 45.17% 94.95 78.91 0.39% 0.07%	10.2
99 2045.660 4.09E-005 64.29% 95.60 79.56 0.07% 0.01%	11.6
101 2089.590 3.97E-005 62.39% 95.97 79.93 0.20% 0.04%	12.0
103 2132.830 5.99E-005 94.16% 96.33 80.29 0.29% 0.05%	0.3
107 2207.350 7.38E-005 116.02% 96.92 80.88 -0.09% -0.02%	0.9
109 2250.710 2.81E-005 44.23% 97.26 81.22 0.00% 0.00%	1.3
111 2293.520 5.28E-005 83.04% 97.58 81.54 0.07% 0.01%	1.6
115 2378.240 4.97E-005 78.10% 98.21 82.17 0.16% 0.03%	2.2
119	2.8

5	Sound 1	Sweeping Ges	sture – start						
	NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	1	33.227	0.0179405	100.00%	24.28	0.00	0.00%	0.00%	0.3
	2	66.681	0.0149715	83.45%	36.33	12.06	0.34%	0.16%	0.3
	3	107.655	0.0143147	79.79%	44.63	20.35	8.00%	3.08%	8.6
	4	139.619	0.0124321	69.30%	49.13	24.85	5.05%	1.77%	1.1
	6	212.774	0.00142043	7.92%	56.42	32.15	6.73%	2.04%	8.4
	8	268.636	0.000945462	5.27%	60.46	36.18	1.06%	0.30%	0.5
	11	376.709	0.000350688	1.95%	66.31	42.04	3.07%	0.80%	6.3
	13	429.027	0.000165625	0.92%	68.56	44.29	-0.68%	-0.17%	8.6
	15	505.038	9.3369E-005	0.52%	71.39	47.11	1.33%	0.32%	11.4

Sound 2	Sweeping Ges	sture – End						
NHN	Frequency	Amplitude	Amp Ratio	Pitch (MIDI #)	Interval from Fundamental	Diversion (Hz)	Diversion (Pitch)	Pitch Class
	2 62.554	0.022123	105.82%	35.23	10.49	-8.36%	-4.11%	11.2
	1 34.131	0.0209067	100.00%	24.74	0.00	0.00%	0.00%	0.7
	3 116.765	0.0145317	69.51%		21.29	14.04%	5.20%	
	5 185.057		55.27%		29.27	8.44%		
	9 313.929		46.65%		38.42	2.20%		
	6 194.729		36.84%		30.15	-4.91%		
	7 247.216		35.29%		34.28	3.47%	1.01%	
	2 72.765		34.18%		13.11	6.60%	3.01%	
	4 120.112		32.39%		21.78	-12.02%		
	367.293		23.60%		41.13	-2.17%	-0.57%	
	4 494.697	0.00377677	18.06%		46.29	3.53%	0.85%	
	828.405	0.00360408	17.24%		55.21	1.13%		
	702.015		15.16%		52.35	-2.06%	-0.46%	
	3 440.459		11.77%		44.28	-0.73%	-0.18%	
	8 615.444		11.54%		50.07	0.18%	0.04%	
	669.300		10.37%		51.52	-1.95%	-0.45%	
	6 547.885		9.19%		48.06	0.33%		
	923.452		7.54%		57.09	0.21%		
	969.802		6.99%		57.94	1.48%		
	0 345.190		5.92%		40.06	1.14%	0.30%	
	1099.670		5.75%		60.12	0.68%	0.14%	
	1045.280		5.62%		59.24	-1.21%	-0.25%	
	1152.500		4.98%		60.93	-0.69%		
	883.732		4.82%		56.33	-0.41%	-0.09%	
		0.000899637	4.30%		58.67	-1.25%	-0.26%	
		0.000565472	2.70%		43.76	-3.68%	-0.94%	
		0.000319824	1.53%		45.19	-2.83%	-0.71%	
	6 538.697	0.000219669	1.05%	72.50	47.76	-1.36%	-0.32%	0.5

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