UPDATE SUMMER 2020

1.3 Nine types of industrial pollution

"Nine types of industrial pollution" is the first time when Zappa took a solo by himself as a separate composition. It's a sped up track, as the ZFT release "Uncle light" shows. "Uncle light" belongs to the project/object series by the ZFT with additional recordings surrounding an album. This time it's the original vinyl mix, the tracks in an earlier following order and a couple of different edits. "Nine types of industrial pollution" lasts 9:53 minutes on this release, thus much longer than the 5:56 minutes on "Uncle Meat". It's something Zappa frequently did. This solo is in Bb Dorian, with Bb as bass pedal note.

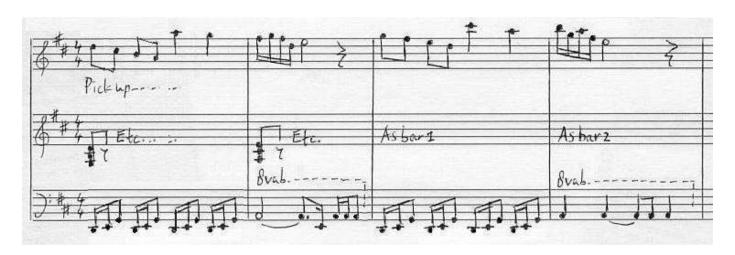
This solo is actually a guitar duet. With nobody else being credited for playing guitar, he must have overdubbed a second guitar part. Probably a third one too for some additional harmony notes. It's also a rare instance of him playing acoustic guitar. The drums-percussion element during this solo is abundant. Four people could have participated in playing that part. At some points the bass part isn't brightly audible, the transcription being an approximation. Though lasting only 14 seconds, the example above already takes up quite some space. If you would write out the drums-percussion part too, it would double in size. It's quite a dense solo.





Nine types of industrial pollution, section. Transcription: KS (update 2020, deposited at the I-depot, The Hague).

In its first appearance on album as track 5 on the "Uncle Meat" CD, the main "Dog breath" theme gets incorporated in a song with three sections. The introduction, some pop music in 4/4, is followed by the main theme, also in regular 4/4. The pitches of the voices are in strange high registers, probably achieved by speeding a track up to double frequency. The theme is segued by a peculiar part with modern music. It starts with fast high clavichord notes and a piano chord, played at a low volume over a steady drum beat. Over these figures various wind instruments play short phrases, responding to each with pauses between them. The transcription below presents the last bars of the main theme and the opening of the modern section. Bars 1-4 have something of both G Lydian and A Mixolydian. As in the opening of "Dog breath" the bass makes a G-A alternation, so that's G Lydian. But with the A in a lower register and longer sustained, the A gets to sound more as the key note. The modern music section is atonal, though starting at 3:30, some diatonic material can be heard as well. It sounds as an add-in, appearing on the ZFT archive release "Meat light" as an individual track in a different edit, introduced as "The unbelievable Blood unit". The example below contains 10 seconds from this block, lasting one and a half minute in total. By itself it looks quite irregular. When you're listening to the whole, you can recognize the melodic elements in it, that get varied upon. Such elements are the arpeggio-like figure from bar 12 and the melodic cell D-C-D, that appears four times in bars 13-15. This cell returns in the shape of a little sequence, starting at 2:50. Arpeggio-like figures can be heard at other spots too, like at 2:55.









Dog breath (1969), section. Transcription: KS (update 2008, deposited at the I-depot, The Hague), lead melody in bars 1-8 by W. Ludwig. Bars 9-15 have been renewed in 2020 after a comparison with "Blood unit".

To the right the comment from the CD liner notes about recording "Blood unit" (calling it "the weird middle section"). Today you've got many people listening through Youtube or Spotify, missing information like this. By comparing "Blood unit" with bars 9-15 from the above "Dog breath" example, you can notice that the band recorded more tracks for block C than actually used:

- Bars in 3/4: the rhythm in both recordings is the same, but the notes are pretty different. It's played on a harpsichord. In "Blood unit" it's a series of parallel fourths. On "Dog breath" you've got fourths and minor thirds alternating. This figure continues during beat one of the first 4/4 bar. Next you can hear by the ticking of notes that it continues during this bar in some form, but not loud enough to distinguish the notes once the other instruments start. You'd need to listen to the mastertape to be sure what's going on. This goes for both edits. "Dog breath" knows a drum part and a dissonant bass chord during the 3/4 bars. So it looks like "Blood unit" is an earlier phase of block C.
- First bar in 4/4: "Dog breath" is transposed a minor second down, compared to "Blood unit". Staff 3 from "Blood unit" is not present on "Dog breath". Instead a high G can be faintly heard, as well some vague bass notes that come out more clearly in the next bar. The dissonant on beat 3 from "Blood unit", staff 5, isn't audible on "Dog breath". The "Blood unit" example goes from 0:02 to 0:12, while the corresponding "Dog breath" section goes from 2:30 to 2:41, just a fraction slower due to the transposition.
- Second bar in 4/4: on both edits you can hear a similar bass motion. The notes

involved sound different. Staff 4 is alike in both versions, though not all notes from "Dog breath" are audible during "Blood unit". The Bb from "Blood unit", beat 3, on the other hand, isn't present on "Dog breath". Possibly staff 4 is a combination of two tracks.

- Third bar in 4/4: largely identical, apart from the minor second transposition. Staff one goes a bit differently and sounds like being played on different instruments.



Blood unit, opening. Transcription: KS (update 2020, deposited at the I-depot, The Hague).

1.9 Sleeping in a jar

"Sleeping in a jar" is the second movement of the above mentioned quartet. Both movements are included in the Zappa's teens section of this study. Next to the version on "Uncle meat", you can find other renditions on:

- "Road tapes, venue #1": live, in combination with "Pound for a brown".
- "Ahead of their time": idem, briefly described in the Zappa's teens section.
- "Road tapes, venue #3": idem, from the Flo and Eddie era.
- "Carnegie hall": idem.
- "Playground psychotics": idem, now released as an individual track.

So live the two movements were played in combination during 1968-1971, with "Sleeping in a jar" being played as an instrumental. "Playground psychotics" is a compilation with Zappa picking tracks from three different concerts. On the ZFT release "Meat light" you can find a track actually using the title "The string quartet", being an alternative recording of "The legend of the golden arches". It's without "Sleeping in a jar". It would be interesting if ever the original score of both movements would turn up, to see how Zappa originally composed the two movements as a teenager. In "Pound for a brown" the melodic lines of a quartet set-up can be recognized. "Sleeping in a jar" gives no clues how he originally had instrumentated this song. On the "Uncle meat" album the arrangement is pop-music like (except for the outro), moving away from the modern character of most tracks from above.

1.18 We can shoot you

"We can shoot you" is another example of a modern instrumental piece, atonal and partially improvised. Short as it is, it's a collage of five sections:

- 0:00 Improvisation #1: percussion instruments.
- 0:30 Composed section #1: irregular atonal music, recorded in layers.
- 0:49 Improvisation #2: flute instruments with glissandos.
- 1:32 Improvisation #3: spoken texts. According to the Globalia.net site it has Ian and Bunk talking, ending with:

Ian: [...] and just wail out the last one.

Bunk: Mmm, let's start here, then.

Ian: Yeah.

Bunk: Three, four...

- 1:47 Composed section #2, as transcribed below.

Though only made up of four bars, quite a lot is happening. Like "Zolar Czakl" it's built up in layers with some instruments being sped up and doubled in octaves.

- Bar 1: a sustained dissonant chord is created: B-F-A#-D# plus G#-D on beat 4, while at the end of the bar some melodic movement starts.
- Bar 2: a faster melodic string enters the picture, played in parallel major thirds.
- Bar 3: a slower melodic line via two staves with varying intervals between them. On beat 4 a flute plays an upward melody, on album that fast, that its individual notes can hardly be discerned. The bass line on beat 4 gets played via two staves, three and seven, playing their notes on turn with an octave between them.
- Bar 4: flute instruments play another such ultrafast figure. This section ends with a short descending melody played via an inversion of stacked fourths.
- 2:02 End.





We can shoot you, end. Transcription: KS (update summer 2020, deposited at the I-depot, The Hague).

THE HOT RATS SESSIONS

In December 2019 the ZFT released a multi-CD box, called "The Hot rats sessions". It's an audio documentary CD, for the major part giving you the opportunity to be present during the recordings of the basic tracks. As Matt Groening is explaining in the liner notes, it's still only a small part of the total amount of recorded material because of the huge quantity of composed and improvised overdubbed parts. Historically it shows what material got recorded on which date, as well as that several pieces had different working titles at the beginning. These titles can be found on the reels and/or they get mentioned at the start of takes. Musically some unused soloing sections are of interest as well as a few oddities as a "Little umbrellas" recording from the Cucamonga period. To the right: Frank and Gail, around 1969.

The Hot rats sessions included:

Original title	Album of release	Final title

Piano music (section 1)	Burnt weeny sandwich	Little house (piano introduction)
Piano music (section 3)	Hot rats/Burnt weeny sandwich	Peaches en regalia/Aybe sea
Peaches en regalia	Hot rats	idem
Peaches jam	(unused)	
Arabesque	Weasels ripped my flesh	Toad of the short forest
Dame Margret's son to be a bride	Studio tan	Lemme take you to the beach
It must be a camel	Hot rats	idem
Natasha	Hot rats	Little umbrellas
Bognor Regis	(unused)	
Willie the pimp	Hot rats	idem
Transition	Chunga's revenge	Twenty small cigars
Lil' Clanton shuffle	The lost episodes	idem
Directly from my heart to you	Weasels ripped my flesh	idem
Another waltz	Burnt weeny sandwich	Little house (solos)
Son of Mr. Green Genes	Hot rats	idem
Big legs	Hot rats	The Gumbo variations

In the LP era the length of an album and its format could sometimes be a problem. A contractual side was expected to last between 15 and 20 minutes, some minutes over 20 being possible. Since the latter diminished the sound quality, Zappa avoided that. Then the next size step from a single album was a double album. An EP or a blank side as a way in between never got popular. You can see that for strongly conceptual albums as "Joe's garage" and "Thing-Fish" choices had to be made. In the case of "Joe's garage" the story ends with "Watermelon in eastern hay", leaving still half of a side remaining. It was solved by including the "Little green rosetta" jam. For "Thing-

Fish" the quantity of the play got between a double and a triple album. It could fit on a double album, but then you would for instance be forced to cut "The torchum never stops" into two. In this case Zappa made no concessions and chose for six short sides, shorter than normal. With the entrance of the CD this problem belonged to the past. In the case of "Hot rats" the recording sessions resulted in a lot more than what's on the original album. In this case we got to hear much of the overflow unaltered later on. Normally Zappa would record the unreleased material anew, so that it would fit better on later albums. As I understand it Dweezil included an unused solo section from "Peaches en regalia" on one of his albums. Zappa continued to record with the musicians from "Hot rats" in March 1970. Among these recordings are:

- The lost episodes: Sharleena.

- Quaudiophiliac: Chunga's basement.

Bognor Regis

"Bognos Regis" is a title that stayed unreleased by Zappa himself, though it has been known for long via the bootleg circuit. It's included in "The Hot rats sessions" in two shapes, the longer "unedited master" version from 1969, and the shorter "Record Plant mix" from 1970. The example below is transcribed from the first one.

It's built rather freely around a I-IV alternation in E Dorian. During the composed part, 0:00-0:38, this alternation takes place within a bar. When the soloing starts at 0:39 it turns into an accompanying figure of two bars, with the bass pedal/chords alternating every bar. Bars 5-6 from the example are the beginning of the solo section. According to the liner notes, "Bognor Regis" over the years developed towards "Conehead", a title included in the Läther section if this study. Not the 1977 "Conehead instrumental" from "Baby snakes", but the 1978 version that can be found on the "Saarbrücken" bootleg from the "Beat the boots" series, as well as the later "You are what you is" album. Indeed "Conehead" is also using a I-IV alternation in Dorian, otherwise "Bognor Regis" and "Conehead" don't have much in common.



Bognor Regis, 0:26-0:44. Transcription: KS (update Fall 2020, deposited at the Idepot, The Hague).

Peaches jam

The "Peaches jam" was recorded on 7-28-69 when the basic tracks for "Peaches en regalia" got recorded. The two parts included in the "Hot rats sessions", however, contain no references whatsoever to the thematic material from "Peaches en regalia".

The first part is the session musicians jamming without Zappa participating. If I'm reading it correctly the musicians during the jam were:

FZ: Guitar

Violin: Don Harris Johnny Otis: Tack piano Ian Underwood: Piano Shuggie Otis: Bass Ron Selico: Drums

The second part is blues with the example from above containing half a blues-cycle with Zappa entering the picture. It's standard 12-bars blues in A Dorian with an amount of liberty. Ian Underwood follows A Mixolydian, rather than Dorian. One might say Zappa himself is using A minor pentatonic for his soloing. The meter is 12/8, strictly followed all through this 10-minute jam section.





Peaches jam - part 2, 6:21-6:38. Transcription: KS (update Fall 2020, deposited at the I-depot, The Hague).

2. Pygmy twylyte (1973)

Zappa would keep playing "Pygmy twylyte" in an extended version in 1974. I'm dealing with this version in the next YCDTOSA Vol. II section, where I've included the main theme and excerpts from two different guitar solos.

Both "Pygmy twylyte" and the next song "Dummy up" are about drug abuse. The first one in a rather cryptical way. At the end of track 1 of disc 1 of the 2019 ZFT issue "Halloween 73", you can hear Zappa commenting upon this song: "our program will begin with a brand new song that deals with the delicate subject of drug abuse and how it can damage your consciousness to the point where you, just like the character in this song, may be led to seek gratification in uh, a Greyhound bus depot near a locker and/or located somewhere by the 33rd seat which is right in the proximity of the doo-doo room on the bus, the name of that song is Pygmy twylyte [...]". On 10-31-1973 Zappa performed his two Halloween concerts in Chicago at the Auditorium Theatre, about a month and a half before the Roxy concerts from december. The early and late show from Chicago have been released in their entirety on the ZFT issue mentioned above. Additionally this release contains recordings from rehearsal sessions from 10-20/21-1973. Below to the right an outtake from a photo by Mitch Kuhn, source: Halloween 73 booklet.

Since Ahmet is in the lead of running the ZFT business, it looks like the accent has shifted to mass releases. Prior to "Halloween 73", "Zappa in New York deluxe", "Halloween '77" and "The Roxy performances" appeared giving you the opportunity to listen to a number of concerts being held in a row. Then the element of improvisation comes out the sharpest for experiencing differences between shows. The two examples

from above are the same set of bars taken from an early and late performance of "Pygmy twylyte". The tempo difference is neglectable, some 2 %. Bars 1-4 have a written theme, played in parallels, almost identical on both occasions. George Duke, staff 5, is continuingly improvising with chords next to characteristic strings of 16th notes. Ruth Underwood on the other hand, staff 2, plays the same figure in bars 2 and 4 on both occasions. It sounds as improvised, but apparently this is what she chose to do at this spot. From bar 5 onwards, the guitar solo starts. Now everything is improvised with only the pattern being predetermined: a I-IV alternation in B minor/Dorian. On situations like this, you can hear what Zappa said he did in interviews: on every occasion he started a solo completely anew, without have any composition in mind in advance, not even a motif to start with. Normally he would select the solos that worked out best for his own albums. On occasions like this you can also listen to him playing at a level, that, from this perspective, is taken from a randomly picked reel, which is still fairly good.

The key of the examples above is B minor/Dorian, with the G and G#, that make the difference, appearing both. This note only gets touched upon every now and then, while the C# gets avoided altogether. So it might be called another example of mingling closely related scales. It can also be seen as an example of using a diatonic scale in a sextatonic manner, and, to a lesser degree, as pentatonic.





Pygmy twylyte (Halloween 73, early show), section. Transcription: KS (update summer 2020, deposited at The I-depot, The Hague).





Pygmy twylyte (Halloween 73, late show), section. Transcription: KS (update summer 2020, deposited at The I-depot, The Hague).

1. Strictly genteel (1975)

In the "200 Motels" closing piece "Strictly genteel" the variations form is used with "Lord have mercy..." as the central theme. It's the most classical piece in Zappa's output. Not only because of its variation form, also because of its use of standard chords and a steady meter. "Strictly genteel" re-appeared on the "Orchestral favorites" and "L.S.O. vol. II" albums. See the London Symphony Orchestra section for the details and a number of variations upon this theme (harmonically as well as using counterpoint).

Another directly recognizable classical form is the following. On "200 Motels", disc 1, tracks 14-18, the rondo set up is used with "She painted up her face" as the central theme (see the 200 Motels section for this theme). Musically as well as lyrically this is a clearly rounded off story about a groupie preparing herself for going out (numbers are the track numbers):

- 14. 0:00. Theme A: She painted up her face.
- 14. 1:06. Theme B: The secret stair she could use.
- 15. 0:00. Theme C: Janet's big dance number.
- 16. 0:00. Theme A: The clock upon the wall.
- 16. 0:45. Theme D: Half a dozen provocative squats.
- 17. 0:00. Theme E: Mysterioso.
- 18. 0:00. Theme A: She chooses all her clothes.
- 18. 1:00. Theme F: Shove it right in.

The above example from "Strictly genteel" is played between 1:26 and 1:42 on "Orchestral favorites". Bars 1-3 are transcribed by me. I'm not positive about the voicing and exact notes of the chords. As I'm hearing it, it's a progression of triads over a sustained D7 chord with some additional melodic notes. Bars 4-7 are the original score in a reduced form. It can be found in a thumbnail format in the "200

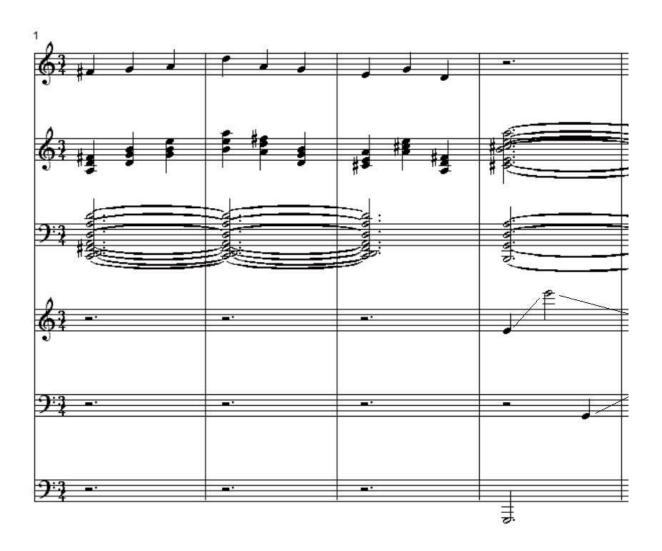
Motels" booklet, with this section being titled "Every poor soul who's adrift in the storm":

- bars 4-5: G pedal with a G Lydian sonority.
- bars 6-7: A pedal with A major. A fast melodic line is played with a number of parallels: octaves and other intervals. Zappa wrote his "200 Motels" score from an ideal situation where the size of an orchestra and rehearsal time formed no hindrance. In all executions of these scores you can hear concessions had to made. In this case the three prescribed pianos weren't available and several staves got skipped. On the other hand the electric bass line from the bottom staff in the example got added to the score. In case of Zappa the sheet music should be taken into account as individual versions too. The sheet music is seldom 100 % identical to what you can hear on recordings of it.

Strictly genteel is present in Zappa's own output on four different albums, next to the written music. These versions differ regarding add-ins and instrumentation, as well as various details. So there are five versions available via:

- "200 Motels".
- "Orchestral favorites".
- "The L.S.O."
- "Make a jazz noise here".
- The sheet music.

The add-ins get described in the 200 Motels and L.S.O. sections of this study. As it comes to the details you can compare the 1975 version of the opening with the examples in the other sections of this study. In 1971 Zappa wrote out everything in detail. My guess is that the piano player could improvise along the chords rather than that Zappa wrote out the example of the 1975 opening in detail too. The improvised part mostly concerns the melodic additions from staff 1. It must have been indicated to use triplets over most beats: the drummer is doing this too (not included in the example above).





Strictly genteel (Every poor soul who's adrift in the storm). See the main text for the source of this example.



Strictly genteel (1975), opening. Transcription: KS, with basic material from the 1971 score.

2. Pedro's dowry

Of a completely different nature is "Pedro's dowry". It's atonal, difficult and versatile to the point of getting brutal. "Pedro's dowry" also returned on the "L.S.O. vol. I" album. Other than tracks 1, 3 and 5, it remained basically the same, that is without additions or re-working upon its construction. Excerpts from this composition are presented in the L.S.O. section of this study as well.

Above to the right Terry Bozzio's comment upon the choreography of "Pedro's

dowry". Source: the Orchestral favorites 40th anniversary CD. Disc 2 of this CD includes "The story of Pedro's dowry" as track 4, beginning with: "The name of this tune is "Pedro's dowry". Let me tell you the story here. This was also written as a ballet, but we just don't have the budget for that sort of thing. Here is the plot. A woman, with ocean front property, waits for someone named Pedro in a skiff, a form of a boat".

Right above you can see the score of "Pedro's dowry" lying on the floor during the rehearsels. See the inner sleeve of "Sheik Yerbouti" for a closer look at the cigarettes and the L.S.O. section of this study for samples from the score. During "The story of Pedro's dowry" you can hear how Zappa himself pronounced the title, "Pedro" sounding as "pay-dro".

Black napkins instructions

The recordings with the Abnuceals Emuukha Electric Orchestra where done at the Royce Hall, part of the UCLA university campus in L.A. During the evenings two concerts were held as well. The audience reacted well to the complicated often new music they got to hear. Zappa spend much time in explaining them what was going on (to the right an outtake of one of the photos by John Williams as reproduced in the 40th anniversary booklet). The orchestra had to play a lot of this complicated music with relatively little rehearsal time, so the live recordings weren't sharp enough for official albums. The ZFT included the second concert in its entirety on their "Orchestral favorites 40th anniversary" CD. Though no new musical angles are offered, it gives a better idea of the project. Of interest are a few improvisation sections, as well as Zappa's comments. "Black napkins" gets preceded by five minutes of "Black napkins instructions", where its vamp (in the shape of a chord alternation) gets explained and orchestrated as shown below.

Chords

1:08 "The changes for this song are C#m, for two bars, DM7, for two bars, and that's it ..."

Meter

1:16 "... and it's in 3/4 ..."

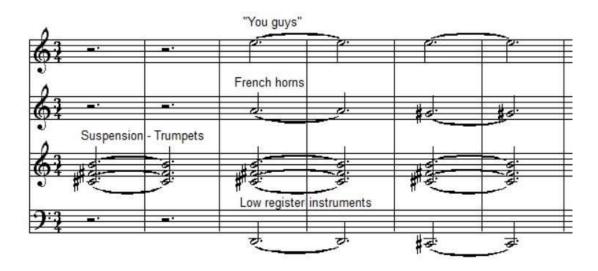
Instrumentation, basis

1:18 "... and we'll voice it out, uh, let's see. Well you guys can pick any voicing, it's like a ..., let's put a suspension on top with a C uh, you can have a C#, a B and an F#, that'll stay over both chords. Only low register instruments can play the note D when it changes to the, uh, DM7, and the low brass should be voiced out with a bass trombone and a tuba with a, a D on the bottom and then both you guys play E a 9th over that, French horns the A in the middle, ok? And then the trumpets, uh, uh, see ... C#, F# and B, and, when it goes to the, uh, the C#m chord you guys are still on that same notes

and you guys move uh a-hen-na, now the D goes down to a C#, the A goes to a G# and the E stays where it is, ok? All right?"

Tempo

2:28 "So can we hear that just a little bit, you know, it's just about one-two-three, one-two-three?"



These chords along the instruction (concert score).

Because of the suspension with C#-B-F# the chords are getting larger:

- -DM7 => D-F#-A-C#-E-B = D13 (no 11th).
- $C#m \Rightarrow C#-E-G#-B-F# = C#m11$ (no 9th).

Theoretically speaking, all by itself, the vamp could be interpreted as a I-II chord alternation in C# Phrygian, or I-VII in D Lydian in the following order from above if you like. During all performances, however, they are used for implying a modulation scheme with over C#m7:

- C#-D#-E-F#-G#-A-B = C# minor/Aeolian.
- C#-D#-E-F#-G#-A#-B = C# Dorian.

And over DM7:

- D-E-F#-G#-A-B-C# = D Lydian.

Zappa continues with:

Instrumentation, doubling parts for the other instruments

2:56 "Similar voicing over here, I'd like to have a ... both you guys on baritone playing those ..., that boring root progression and uh, you stay on the alto, you stay on the sarrusophone, play the boring bottom end of it, everybody else grab any of the notes in between, uh, three piccolos ..."

When you're listening to this track repeatedly, you'll notice that this instruction is used for entertaining and informing the audience about the idea of the vamp, rather than truely instructing the orchestra.

First Zappa didn't think of this vamp as boring. He loved it, playing hundreds of times over it during a period of 13 years of touring, with some twenty performances becoming available via official sources. Secondly the orchestra is playing freely through the vamp in the example above, in an improvised manner rather than trying to play it as literal as possible as Zappa is instructing them to do. Further comments about "Black napkins" included in this study can be found at:

FZ:OZ section: "Black napkins" as played during 1975-6.

Shut up 'n play yer guitar section: this title played in the shape of "Pink napkins" in 1977.





Black napkins instructions, 2:36-2:50. Transcription: KS (update summer 2020).

Evening at the Hermitage

Track 6 of disc 3 of the 40th anniversary CD, "Another weirdo number", introduces two improvisation blocks. Track 7, "Lumpy gravy (extract)/Improvisation", begins with the written music from "Envelops the bath tub" from part II of "Lumpy gravy", after which some sort of an orchestral jam session begins. It gets followed by "Evening at the Hermitage", a title by the ZFT, who had released this track earlier as "Hermitage", a shorter version as part of their "One shot deal" CD. The following is most of the end of "Evening at the Hermitage", that got edited out on "Hermitage".

There's no footage of this event, but it can be assumed that this title includes sections with directed improvisations, probably by Zappa himself. The section above is hardly meant to be transcribed because most of the notes are randomly picked. The pattern is:

- The dashed bars 1-3, without a true meter: per bar Zappa indicates the orchestra to play any note like a musical exclamation mark. Next the members from the orchestra and audience can chant "ho", crescendo and going upwards regarding pitch, till they stop on the next exclamation mark. This "ho", isn't included in the midi file, because my midi editor doesn't support this effect, the remainder can be approached to a degree.

- Bar 4: after the last exclamation mark members can play melodies at choice. Michael

Zearott, maybe Zappa himself, starts conducting normally.

- Bars 5-10: the meter has become 4/4. The bass plays a brief melody, that gets varied upon each bar. The members of the orchestra can play melodies at will, creating a cacophony full of dissonants and arbitrary timbres. At this point the example above is more sketch-like than an attempt to capture all of this on paper.
- Bar 11: a sustained C-chord changes the atmosphere overnight from totally atonal to diatonic. The harmonic fill-in over this chord is briefly touching upon B at the beginning, followed by Bb, suggesting a C Mixolydian sonority.
- Bars 12-13: this C-chord becomes the first chord of an harmonic cadence: C-Em (no 5th)-Gm (no 5th)-F (add 6)-F. So it ends in F.

How such indications to the orchestra and audience worked can be seen during an interview in 1973 on an Australian show. The images above are from a Youtube copy of this interview, also briefly coming by in Zappa's own "Video from hell" video. According to the data available on the Globalia.net site, it's from a show called "In Adelaide tonight with Ernie Sigley". Here you can actually see and hear Zappa instructing the audience and the studio band how you can build up a little composition from scratch by giving a number of hand signals. The following is a number of citations of most of what he said regarding these hand signals:

"Sometimes during our shows we'll conduct the audience as a musical instrument. I have hand signals that I use to conduct the band, that give them cues to make musical sound effects and so forth. Sometimes these cues are extended to the audience, if we have an audience that's in the mood for it. Looks like you guys might be in the mood for it.

What I'll do is demonstrate first of all what the cues are and then I'll show you how they are to applied to make a piece of music out of absolutely nothing. Ok, first of all, one finger means get ready to applaud. Ordinarily on TV you have a sign lighting up that says clap your hands. However with this exercise one finger means get ready to applaud and I'll point to one part of the audience and you start applauding over here and, when my finger goes across, you stop clapping and the people over here start clapping so you can move the applause around the room like stereo ... It sounds very interesting and you can also get the loudness and softness of the applause and it'll work pretty nice. [follows a try out].

That's the most simplistic one. Now the next is two fingers. It requires that you make a very low noise, any low noise that you want to make with your mouth on cue for two fingers like this, now are you ready. And for the band two fingers down like this mean play any low note on your instruments, just sort of bump cut off like an exclamation point. [follows a try out]. And here is just the opposite of that. The highest possible note on your instrument. Now we have four possible signals: grunt, peep, clap, put [indicates put symbol to end]. And we're gonna enrich your musical texture now by including a chord, you can choose any not you like. Attack any pitch, increase the volume, and this is bend the pitch down. This is bend the pitch up."

In the 40th anniversary booklet, Terry Bozzio writes: "I do remember Frank's hand signals and his method of spontaneously composing music by "playing" the band or

orchestra. Certain gestures he used were meant to signal us to play very specific things and great and unexpected events happened when he did this. Audiences seemed to love it and a lot of humor came out of it for us in the band as well. I'm sure we did some of this with the orchestra."

A bit more in this study about hand signals and audience participation:

- Absolutely free section at "America drinks": Art Tripp showing how Zappa indicated the band to play in 5.
- Weasels ripped my flesh section at "Toad of the short forest": other hand signals for the band.
- Tinsel town rebellion section at "Dance contest": audience participation in the shape of a dance contest.





Evening at the Hermitage, 2:21-3:00. Transcription/sketch: KS (update summer 2020).

Wild love (1977)

All concerts included at least one title where band members could improvise in turn. Only a 1974 performance of "Dupree's paradise" reached an official album in Zappa's own catalogue unedited. Songs played like this could average between 15 and 30 minutes. With the many ZFT releases of complete concerts, quite a few other examples have become available. During the Halloween concerts of 1977 "Wild love" got used for letting the band members solo, all six examples being present on the stick version of "Halloween 77". Terry Bozzio's drum solo wasn't part of "Wild love". It always got included as a separate intermezzo.

The construction of this song from the 1977 October 28th concert, show 1, goes as: -0:00 Written part of "Wild love" with all of its themes being dealt with in the Sheik Yerbouti section of this study.

- 3:53 The "disco" vamp from 3:05 now gets used for introducing the soloing block. The bass pedal is C# instead of B at this particular point, letting the scale switch to C# Dorian.
- 4:00 A new accompanying figure in B Mixolydian enters the picture. Beginning of keyboard solo #1.
- 7:04 Keyboard solo #2.
- 7:43 Marimba & other percussion solo.
- 10:11 The accompanying figure gets restated with chords. Beginning of a synthesizer solo.
- 12:18 Guitar solo #1 with its opening as shown in the example below.
- 14:25 The accompanying figure ends, transition to guitar solo #2. Any connection with the previous is lost, it sounds as a new song beginning. This is Zappa himself soloing, including it as an individual piece on his later "Trance-fusion" CD as "Bowling on Charen" with a couple of bars being edited out. See the next track below.
- 21:42 Return of the written themes.
- 22:24 Additional coda, similar to the one used for "Läther" as a song. See below.
- 24:05 End.

In 2017 the ZFT came out with their thus far biggest release, "Halloween 77", with all the Halloween concerts from 1977 on it. Above a sample from the booklet as included in the 6-concerts-on-a-stick version with titles 1-20 of the tracklist from the 30-10-1977 show (in total consisting of 30 tracks). The shows on the stick are:

- 28-10-1977 show 1.
- 28-10-1977 show 2.
- 29-10-1977 show 1.
- 29-10-1977 show 2.
- 30-10-1977.
- 31-10-1977 (Halloween night).

Next to the stick version, this issue was also made available on CD format. As a 3-CD-set it contains all of the 31-10-1977 show and four additional tracks from the 30-10-1977 concert.



Wild love (1977), 12:10-12:35. Transcription: KS (update 2020; deposited at the I-depot, The Hague).

Läther (title song)

Läther, as a song title, is the same composition as "I promise not to come in your mouth" from the previous section. It got renamed as the title track when Zappa assembled the material for the "Läther" album. It appears under this new title on the ZFT releases "Läther" and "Halloween 77". In 1977 Zappa enlarged this song with an additional coda, presented below for the composed part. It's transcribed from the 1977 October 30th concert.

Bars 1-7 read as an exercise in following different meters and rhythms. Next this coda continues in 3/16 for six more bars, after which Zappa starts improvising without a meter over a sustained chord. Harmonically there are pedal notes and reminiscences of diatonic scales, but not stable enough to assign bars to specific keys.

Sides 5-6 from the Läther reels with "I promise not to come in your mouth" being retitled to "Leather" in Zappa's own handwriting. See the typed setlist from the "Zappa in New York Deluxe" booklet for the use of the original title when played in 1976. "Läther" is a German spelling that would get pronounced as "Leather", though not a German word (leather would be Leder in German). "The ocean is the ultimate solution" got renamed as "One more time for the world" on side 7. The ZFT is using

the original title of that particular song on their "Läther" CD. Seen its duration and absence of the title "The ocean is the ultimate solution" on the reels, "One more time for the world" has to be the same song.



Läther (title song), coda. Transcription: KS (update 2020, deposited at the I-depot, The Hague).

3. Shut up 'n play yer guitar (album) - Shut up 'n play yer guitar some more (Guitar book)

A solo in C Lydian with a C-D chords/bass alternation. To the right Zappa's comment upon tracks 2-3, Guitar Player, October 1995. The titles "Shut up 'n play yer guitar" and "Shut up 'n play yer guitar some more" are turned around in the FZ Guitar book, compared to the album. Both are official releases. They are of a comparable length, possibly Zappa changed his mind which one should be on record 1 and which one on record 2. I only realized this when including an example by myself (so, it appears, I don't know all solos by heart). Up till the 5th pdf edition of this study, the samples from the Guitar book of these two titles are at the wrong track because of this. So it's actually transcribed in The FZ Guitar Book, pages 136-152, this one including the drum part. The drumset notation is included in the book on page 8, next to specific

guitar effect notations. It's the notation Zappa himself used for "The black page drum solo". Below a sample from this piece (see the Zappa in New York section for more). It's also the notation I'm following in this study for the couple of instances where I've included the drum part.

Zappa's solos could sometimes be individual pieces, but mostly they were part of songs. In this case the solo stems from "Inca roads" as included in the 1979 European winter tour. So you get a whole series of such C Lydian solos on tape, from which he would pick out the best. In this case Zappa was such pleased with the results that he would release five of them in total, four on this CD and one on "Guitar" ("System of edges"). See below at "Gee, I like your pants" and "The return of the Son of shut up 'n play yer guitar" for C Lydian solos with the I-II alternation from this set. Others from this study are "Holiday in Berlin", "Inca roads", "Orange county", "RDNZL", "Occam's razor", "Pick me, I'm clean" and "System of edges".

This second example is the end of this solo, 5:17 till 5:37. Bars 1-3 are variations upon a motif of one bar. The harmony notes in the background are mostly vague, being harmonic fill-in with a C-D chord alternation as basis. The drum part isn't included here, but can be found in the Guitar book. All titles on "Shut up 'n play yer guitar" end with snippets of spoken text with sometimes some irregular musical elements added to it. On this occasion a chromatic melody by a harpsichord. The information about who's talking and playing during these (studio) snippets is not given, only the participants during the solos. The solos get cut off brutally, seguing into such a snippet, that on its own turn gets directly followed by the next solo (hence a 1/16 meter notation for the last bar: it shouldn't be followed by a pause). By comparing bar 8 from my example with the final bar from the Guitar book, you can see that it got cut off just before it's actual end on stage. The slowing down of the pace and descending melody during bars 5-7 already indicate that the solo is probably reaching its end. On life footage you can see that Zappa turned around towards the band to indicate that the song the solo was part of should restart in the next bar.





Shut up 'n play yer guitar (album title), end. Transcription: KS/Steve Vai (update 2020, deposited at the I-depot, The Hague).

5. Treacherous cretins

Here we get at a solo over a vamp. In Guitar Player, October 1995, Zappa talked about a "harmonic climate" created by this vamp, implying D Minor and A chords:

"There's a little four-note vamp in 'Treacherous Cretins' (on *Shut Up 'N Play Yer Guitar*) that implies *D* minor and *A* chords. It creates a harmonic climate. I don't think of them as chord changes. Instead, I look at the whole as a harmonic *attitude* that sets up a mood, and I just play inside of that attitude."

Up to the 5th pdf version of this study and in my discussion with Brett Clement I took this for Zappa interpreting the scales as D minor and A, possibly D Dorian and A Mixolydian when you take into consideration people don't always make such distinctions. Below I've transcribed the opening of "Treacherous cretins" in detail,

leading to some refinement upon this. Semantically the above might mean chords from D minor and A, but seen the transcription it's getting more likely that Zappa had just the Dm- and A-chord by themselves in mind. In that case "implied" would be an understatement. The accompanying chords by the keyboard and rhythm guitar(s) are explicitly using these two chords in the example below.

For the vamping melody (starting solo during bars 1-4), I'm using two staves. You can hear that these notes have their accents in the right or left channel of the stereo field and that their sound is slightly different. This only serves the midi file, but the other details are relevant for the analysis. The solo is transcribed in The FZ Guitar Book, pages 70-78. It begins with indicating Dm and A for the accompaniment and mostly this suggests a D and A bass pedal alternation as well (the bass part is never included in the Guitar book). I never gave this much thought and a D and A bass alternation would very well have been possible, but the actual bass pedal is an A for both bars from the vamp. In this study I'm always letting such bass pedals determine the scale, rather than the chords.

An important topic of Brett's theory is that Lydian should be seen as the central scale. For that reason he's trying to put as much error marks behind my examples of the other scales as possible. About the previous "Shut up 'n play yer guitar" track and "Treacherous cretins" he writes:

- Shut up 'n play yer guitar, A Dorian: "X (C Lydian)".
- D minor: "X (No, A is definitely the pitch center here)".
- A: "X (No, the notes are A B C# D E F G; how is that Ionian)".

After checking things out he has a point. The A Dorian part in the Guitar book is happening during "Shut up 'n play yer guitar some more" on the album (see below). So it could be listed at another title, but it definitely should be listed among Dorian examples.

When Zappa starts soloing during "Treacherous cretins", as in bars 8-12 from the example above, he's using a C# with only one instance of a C natural by the accompaniment. The other notes are always natural. When following the approach of this study, I agree with Brett that A-B-C#-D-E-F-G should be seen as the primary scale (not a standard diatonic scale, but a major type of scale). The Guitar book suggests a C natural being used for a longer period at the bottom of page 73 and top of page 74, which would mean you're in A minor/Aeolian. This appears to be due to writing or setting errors. When you listen to these bars, it's also here a C sharp. The few genuine instances of a C natural concern altered notes.





Treacherous cretins, opening. Transcription: KS, with some material by Steve Vai.

6. Shut up 'n play yer guitar some more (album) - Shut up 'n play yer guitar (Guitar book)

C Lydian as above, for a while also A Dorian. This solo is transcribed in The FZ Guitar Book, pages 23-43, as "Shut up 'n play yer guitar". See also above for the titles "Shut up 'n play yer guitar" and "Shut up 'n play yer guitar some more" being turned around in the Guitar book compared to the album. The accompanying chord scheme is I and II of C Lydian alternating, later on for a moment I and IV of A Dorian alternating. The Dorian episode is happening on pages 30-31 of the Guitar book, with Steve Vai using the word modulation.

Above are two bars from this solo with some examples of the difficult irregular groupings, which Steve Vai would use for transcribing. These two include tuplets within tuplets. For most of his albums Zappa tried to create a sound specific for an album. This also goes for how the guitar sounds, especially for the three title tracks. Taken from subsequent gigs, these have an outspoken use of the stereo field, where also the intonation of sustained notes can move during their duration. Zappa produced all of his albums himself (only the first two were contractually attributed to Tom Wilson). He was quite fanatic as it comes to production techniques. It's a subject I have no technical knowledge of, so I can't effectively describe it, but it's something you can readily notice. Many Zappa albums sound perfectly produced. Sometimes there was no alternative but to accept lesser conditions, something Zappa dreaded. On this specific track you can occasionally hear the high feedback tones that live systems sometimes generate. Apparently this didn't really bother him.

Bars from Shut up 'n play yer guitar some more (album)/Shut up 'n play yer guitar (Guitar book), page 30, with the modulation to A Dorian. Some solos know a premeditated modulation scheme, like the previous "The deathless horsie" track. In this case this modulation must have been initiated by the bass player, Arthur Barrow, looking for some variation. The other three C Lydian solos from "Shut up 'n play yer guitar" don't know such a passage and, as Zappa himself is saying above at track 3, he had no plans in advance for this solo. The modulation is achieved by a pedal substitution. Theoretically it can also be identified as still being in C Lydian, with the I-II alternation being replaced by a VI-II alternation. In this study I'm interpreting changes of the bass pedal as key changes, when they last for more than a few bars, as also Steve Vai is doing.

9. Charlie's enormous mouth

"Beauty knows no pain" segues into "Charlie's enormous mouth". This last song is very accessible mainstream music. That doesn't apply to the lyrics, that are kind of brutally formulated. It also doesn't go for the meters, of which Ludwig is saying: "The piano introduction, being blended with the end of "Beauty knows no pain", knows a 10/4 meter (4/4 plus 4/4 plus 2/4). After being played three times, a short break of two times 4/4 can be heard. The next 9/4 bar (5/4 plus 4/4) for the words "Charlie's enormous mouth" is yet another example of odd additive meters as a result of what's probably speech-influenced".

"Charlie's enormous mouth" is in Ab, sometimes touching upon Ab Mixolydian too. The song is indeed characterized by varying meters. The example above is taken from the middle of this song. It contains:

- Bars 1-3: "They call it the mouth": standard 4/4.
- Bar 4: first bar with "la-la-la": 5/4, the reason for extending the previous 4/4 bar is musical.
- Bar 5: first bar with "la-la-la": 6/4, again an extra beat adds an additional pause for musical reasons.
- Bar 6: "Kinda young kinda wow": 7/4. At various points in this song bars gets extended for the guitars to add little improvised intermezzi.
- Bar 7: "Charlie's enormous nose": 9/8. This time the odd meter is speech-influenced, as correctly described by Ludwig (9/4, taking a different time unit). This bar sounds natural because of this speech-influence, but when you try to dance to this song or nod your heath to it, it causes a brief hick-up.
- Bar 8: "But it's all white": 6/4. Like bar 6, the extension is used for instrumental soloing. "White" is in the context of this song obviously a reference to the use of cocaine.
- Bar 9: "The girl got a very large nose": 6/4, speech-influenced, but not leading to a change of meters.
- Bar 10: "But it's all white": 6/4. As bar 8, with the bass taking part of the soloing too this time.





Charlie's enormous mouth, section. Transcription: KS (update summer 2020, deposited at the I-depot, The Hague).

6. Truck driver divorce

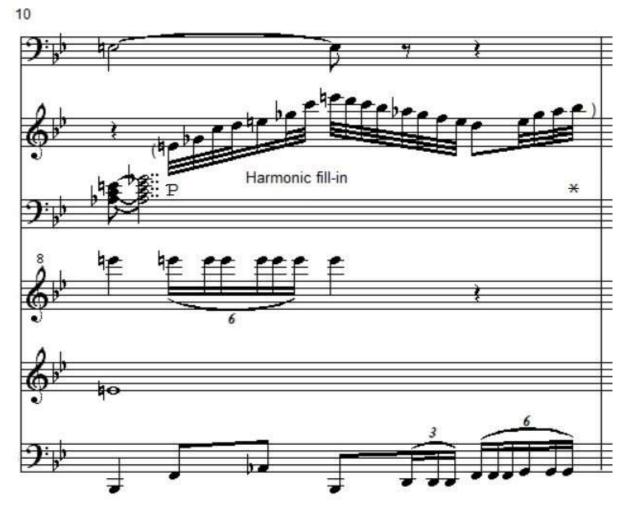
Specifically in the U.S., country music is popular. Zappa could turn to it every now and then. "Lonesome cowboy Burt" from "200 Motels" can be called a parody of the genre. "Poofter's froth Wyoming plans ahead" from "Bongo fury" and "Harder than your husband" from "You are what you is" are stereotype examples of this style. See the You are what you is section for two examples taken from the latter song. "Truck driver divorce" is taking the genre to a higher level. It's a complex song with a larger guitar solo in it. The lyrics of "Truck driver divorce" are a continuation upon "No not now" from "Drowning witch". Also in sound "Them or us" is a continuation upon "Drowning witch" with the sharp metallic sound of the guitar returning.

Nominally "Truck driver divorce" is in Bb. That is it follows this key, when the central theme gets played as during bars 5-6 from the example from above ("Oh, go ride the bull"). Otherwise this song is full of altered notes and dissonants. This central theme is

what you might call the traditional country element of this song. The various side themes are taking it far away from the stereotypes of the genre. Bars 3-4 contain one of these side themes. They are regular as it comes to their rhythm, triplets followed by a sextuplet string. The harmonies, on the other hand, are chromatic and dissonant, depicting the uncomfortable situation of what's happening in the lyrics. Bars 7-8 know a chromatically descending bass line, over which Zappa and the accompaniments are singing and playing chromatically as well. Bar 9 has one last brief return to the main theme, with bar 10 letting it end upon an Ab+5 chord, add Bb. After this the coda follows, continuing with a solo in E Dorian from 1:29 onwards, taking up the larger part of this song.







Truck driver divorce, section. Transcription: KS (update 2020, deposited at the Idepot, The Hague).

10. Planet of my dreams

"Planet of my dreams" goes back to the mid-seventies when Zappa was recording pieces he had written for his "Hunchentoot" opera (chapters VII-VIII from the Them or us book, see below). For this reason you can see George Duke and Patrick O'hearn being credited. It's not a guest appearance but tracks from earlier recordings Zappa found he could still use. All vocal tracks are from around 1983-4. It includes Thana Harris as a harmony singer. You can hear her as a lead vocalist on "Sleep dirt" (see the corresponding section). This latter CD contains more from "Hunchentoot".

"Planet of my dreams" is a short song with just one larger theme, played twice. Its construction goes as:

- 0:00 Instrumental intro in C.
- 0:09 Main theme.
- 0:30 The instrumental intro returns as an intermezzo, this time with a vocal part without lyrics, just "ooh".
- 0:39 The main theme returns.

This main theme starts in C but soon starts to glide through chords from different keys. The transcribed section above has drifted away from the original key, following a progression of parallel major triads during bars 1-6: C#-D-C#-B.

- 1:08 Outro with the chorus singing "cheat cheedly cheat, go ahead". The lead singer, Bob Harris, responds the first time with "I can't control it", next with "I can't do it". A little error in the CD booklet, with "I can't control it" the first time it makes better sense. Bars 7-10 contain the final progression of major triads: E-A-E-F#.
- 1:37 End.

"Them or us" also exists as the title of a book Zappa wrote in 1984. At first available by mail order, today distributed by Pinter & Martin Ltd., London. To the right an outtake from the back cover. It's not really a book but a huge play, combining earlier plays with a series of new characters and plots. Its nine chapters know no titles. The following subjects and/or characters are coming by (page numbering as in the Pinter & Martin edition):

- Page 2, Chapter I: Francesco Zappa and various other characters. Francesco introduces himself as: "My name is Francesco Zappa. I am an obscure Italian composer. Nobody really knows when I was born, and there is no conclusive evidence I ever actually died. I live in New Jersey now, so, I dress like a native".
- Page 33, Chapter II: Billy the mountain & Greggery Peccary.
- Page 58, Chapter III: Joe's garage till Sy Borg.
- Page 105, Chapter IV: Dong work for Yuda/Keep it greasy & The new gilded grape, a gay bar in Jerusalem.

- Page 123, Chapter V: Almost Carl Sagan & Billy. Billy, having lost his contract with the U.S. Government Atomic Space Laboratory, seeks revenge.
- Page 150, Chapter VI: Manx and various other characters. Many sceneries with Manx as a songwriter in an old office, a special effects warehouse and modern offices and houses in the L.A. Valley.
- Page 179, Chapter VII: Hunchentoot.
- Page 212, Chapter VIII: Hunchentoot, cntd.

On page 234 the lyrics of "Planet of my dreams" can be found.

- Page 252, Chapter IX: Thing-Fish till Mud Club.
- Page 300, Chapter X: Thing-Fish from The meek shall inherit nothing till Harry-as-aboy.
- Page 316, Chapter XI: Thing-Fish from the Crab-grass baby till the end.





Planet of my dreams, section. Transcription: KS (update 2020, deposited at the I-depot, The Hague).

1.8 Mudd club

Next is a fragment from "Mudd club". The construction of "Mudd club" goes as: 0:00 Intro, sung by Ray white.

The intro follows a two-bar accompanying pattern, alternating F and Eb as bass pedal notes. A rare instance of the use of the Locrian scale, F Locrian in this case. The chords used on top of this are Db-Cb, as during the main theme. For that reason many might rather interpret the bass notes as steps III and II from the Db Mixolydian scale from the main theme. In this study I'm letting the bass notes determine the key. When doing this consistently this would be a brief instance of Locrian.

0:11 Main theme by the chorus.

The accompanying pattern becomes a Db-Cb alternation, bass and chords. The key is now clearly Db Mixolydian. When you're listening to "Mudd club" from the beginning, the meter can only be notated as 4/4. What you can see in the example from below is that the downbeat from the second bar from the pattern is rather weak. In bars

1 and 3 the switch to the Cb bass pedal is already made on tick two of the 4th beat of the first bar from the pattern.

0:34 Monologue.

On this occasion Thing-Fish is doing the monologue instead of Zappa, portraying sceneries at the Mudd club. The accompanying figure continues as a vamp for this monologue. Background voices and sounds are happening at the beginning, suggesting the presence of people in a night club. Between 2:31 and 2:37 a brief instrumental intermezzo can be heard over the vamp.

2:54 The main theme returns.

3:16 End, seguing into "The meek shall inherit nothing" with the lyrics "while you work the wall ..." etc.



Mudd club, section. Transcription: KS (update Fall 2020; deposited at the I-depot, The Hague).

3. Little beige sambo

"Little beige sambo" is another synclavier piece, as well as the next track. Several prints have already been handed out to orchestras (see the CDs and scores section). In the L.S.O. section of this study you can find a paragraph about the chord bible, including a quote with Zappa describing how he applied it to this track: "Little beige sambo started off as what we call the cream puff row ... I have this compilation of material that we refer to as the chord bible. And the chords can be used as simultaneous blobs of sound, or they can be arpeggiated in different ways. And then the cream puff row is the derivation of all of the more pleasant-sounding chords that happen to be in the chord bible compilation". Even with information like this I consider it a stretch too far to start indentifying chord bible chords from the example below. The principal problem is that you don't know how the notes should be grouped and you don't have any guarantee that each chord is indeed a chord bible chord. The chords could be grouped in different manners:

- Any vertical combination. When you're taking the voicing of chords as relevant, as

Zappa apparently did, you're soon getting at a large amount.

The number of theoretically possible chords has been investigated by mathematicians as Herald Fripertinger, of which I'm presenting some results in my discussion with Brett Clement. See the left menu of this site for a link to his "Response to Kasper Sloots", with chapter V dealing with the chord bible.

- Bits of melody, interpreted as broken chords. Which notes from which staves should be combined is to a degree a matter of choice.
- Chords played as "blobs" on one instrument. Then there are only a few two-note combinations audible in this example.
- The 16th notes are played that fast, that they sound as arpeggio waves going up and down. Are these one chord or series of chords, and how should they be subdivided?

The example above is made up of 14 bars in 4/4, lasting only 12 seconds. For humans one would say "as fast as possible", but that doesn't apply to a synclavier and it's actually played faster as humanly possible. Some characteristics:

- Bars 1-4: several instruments are playing smaller and larger melodic lines, most of the time in a hocketing manner. These four bars are brightly diatonic. There are no real tonics in this piece, at most you've got temporary local tonics. Upon the lowest note F it would be the set of F major. Througout this piece you can hear motifs and melodies being varied upon. The opening returns at 1:30, the example above might thus be called the main theme.
- Bars 5-7 (beats 1-2): in bar 5 the A has altered to Ab. Next it's getting chromatic. Bars 6-7 are the first ones with an apreggio wave. It goes up and down and over an octave, in neither way using the same notes.
- Bars 7 (beats 3-4) through 9: diatonic again. It begins upon G with the set of notes being the G Dorian collection.
- Bar 10: this sounds as a chord progression: fifths, a fourth, ending with F#m7. The last one is a standard chord, as often with Zappa, not expected to resolve. The effect of chords also depends upon their context. A simple triad doesn't sound special in a composition using mainly triads, but it can come out strongly when you play it in an atonal environment full of dissonants. In this case the F#m7 chord comes out more effectively, because the previous bars haven't been following common patterns.
- Bars 11-14: these are pretty irregular, using diatonic scales in a fragmented manner. In bar 11, staff 4, you can recognize stacked fourths and fifths in a broken form. This is also getting commented upon in the Jazz from hell section. These two chords are unconventional, returning frequently in his music, with the stacked fourth being characteristic of the "Uncle meat main title theme". Very likely a stacked fourth was included in the chord bible.





Little beige sambo, opening. Transcription: KS (update summer 2020, deposited at the I-depot, The Hague).

In the Ulrich book you can find the following quote from a 1985 KUSC-FM radio interview by Charles Amirkhanian. This is the only time Zappa explicitly linked a title to the chord bible. The interview might still be present in their archives and a copy seems to circulate in the bootleg circuit (link below). So it looks correct. This book is from 2018. Apparently Brett wasn't familiar with this interview, nor was I at the time we started our discussion.

3. Little Beige Sambo 3:02

Realized on the Synclavier. FZ explained that 'Little Beige Sambo'

started off as what we call the cream puff row
... I have this compilation of material that we
refer to as the Chord Bible. And the chords can
be used as simultaneous blobs of sound, or they
can be arpeggiated in different ways. And then
the cream puff row is the derivation of all of the
more pleasant-sounding chords that happen to be
in the Chord Bible compilation.³

This does answer one question. "Little beige sambo" is mostly diatonic. The opening of this piece is included in the FZ meets the Mothers of prevention section of this study. Of the works investigated by Brett only "Sad Jane" and sections from "Sinister footwear" can be called diatonic. Then why would Zappa have taken an effort to include diatonic chords in his chord bible when it applied to only one or two works? But it raises a new more disturbing question. If he applied his chord bible to synclavier works, then which ones? And why not to his music for his band too, diatonic and atonal alike? Stylistically there are no fences between these categories. One thing I can tell you for sure: if it's just about the most often occurring chords, then the major and minor triad should be on top, and the number of chord types in all examples in this study is huge.

7. Yo cats

The music of "Yo cats" was co-written with Tommy Mars, credited under his official name Mariano (to the right a photo of him and Frank, photographer unknown). It's sung by Ike Willis with basic accompaniment. The lyrics (by Zappa) are using that many slang expressions, that in this case some explanation as in the Slaven and Russo books is welcome. It appears to be about session musicians seeking ways to maximize their income at the expense of others.

SWING

The example above is its main theme. Notable are the many instances of chords played before beat and the abundant use of triplets. It gives this theme an outspoken swing rhythm, jazz-like. During this example you have to count fast like one-and-two-and-three-and-four etc. with the "and" lasting a 16th note in triplet time.



Regular notation compared to a swing time execution according to Wikipedia.

Only nominally this piece can be attributed to F Dorian, that is it starts like that. Both the tonic and key are volatile in this piece with notes altering frequently. The chord progression of the main theme goes as:

- Bar 1: Fm-Bb, Bbm - Ab+C+F+Bb.

This last chord is a stacked fourth played upon an Ab by the bass, an incomplete Cm13 chord.

- Bar 2: Fm-Bb, Bbm - Eb - D+5.

This bar being a variation upon bar 1, ending differently. Both are ending with a less common chord.

- Bar 3: Dm7-G, Eb-G.

Only the pattern from bars 1-2 is maintained, the chords are all different. The bass now plays like a walking bass, adding extra notes to the overall harmony.

- Bar 4: Dm7-G, E-5 - Cm.

Variation upon bar 3.

- Bar 5: Fm-G, Bb Eb+5 -C.
- Bar 6: Am7 E-5 C E-5, Dmaj7+5 Bm Dmaj7+5 F#m.

Beats 3-4 of bar 5 and bar 6 can be called the second phrase of the main theme. It's drifting far away from the initial start in F Dorian.



Yo cats, opening (Zappa/Mariano). Transcription: KS (update summer 2020, deposited at the I-depot, The Hague).

2.3 But who was Fulcanelli?

"But who was Fulcanelli?" is a pedal note solo. I miswrote myself in the 5th pdf edition calling it E Lydian. In Brett Clement's Response to me it's correcty present in my list of Mixolydian examples. According to Brett it's an outtake from a "Drowning witch" solo, normally being in B Dorian (see my Drowning witch section for a confirmation of the latter). Brett therefore lists it as Dorian with a question mark, adding possibly E Mixolydian by a pedal substitution. So E Mixolydian it certainly is for this track as it appears on "Guitar".

The example above is a small outtake of four bars from this solo, being played half way. Notable is the extensive use of triplets by all parts. Bar 4 is an example of the difficult rhythmic groupings you can get at, when Zappa is playing fast, and as fast as possible a moment.



But who was Fulcanelli?, section. Transcription: KS (update Summer 2020, deposited at the Idepot, The Hague).

2.6 Winos do not march

3) Solos over two alternating chords.

"Winos do not march" is in G Mixolydian, using two alternating chords: VII-I. It sounds very close to I-II in F Lydian, a far more common chord progression in Zappa's music, creating some sort of audio-illusion. I didn't hear this right two times in a row. Only when transcribing the opening I noticed the bass pedal is G for both chords, which must also have been the reason for Brett Clement to call it G Mixolydian in his Response to me. Both Brett and me let these bass pedal notes determine the key, something which Brett calls the "vertical" approach. "Horizontally", that is

concentrating on the chord progression, some people might still call it I-II in F Lydian.

This solo begins with a couple of sustained glissando notes as transcribed above. Notable is the relatively large duration of the chords: four bars per chord. The example above contains only one alternation of 8 bars, before the first chord returns in bar 9. In bar 6 the G chord gets interrupted by a shortly returning F chord.



Winos do not march, opening. Transcription: KS (update Summer 2020, deposited at the I-depot, The Hague).

13-14. Jezebel boy - Outside now

With "Jezebel boy" we're back at Zappa himself composing. Next is the opening of this song. It's to a degree diatonic, though not attributable to keys. And there's a lot of chromaticism taking place. The song begins with a sustained Db chord on top of an E pedal, a dissonant combination. Next the main theme gets presented. It follows a chromatically downwards moving chord progression: Db-C-B-Bb with an additional E

by the bass as passing note for each chord. Thus a sequence of major triads. Staves 2-3 in bars 3-10 represent sirens, mostly in dissonance with the other parts, so creating an atmosphere of tension with police cars arriving. Rhythmic variation is achieved by letting bar 3 continue in triplet time and the syncopic figure the bass is following.

"Jezebel boy" is a strange song, both regarding its structure and lyrics. It depicts a situation in the Hollywood Boulevard district in L.A. with policemen rounding up female prostitutes with short pants, while at the same time a distinguished gentlemen in a Lincoln is meeting a male prostitute, apparently unhindered, the Jezebel boy. Even more peculiar is what guitarist Mike Keneally writes as a comment upon this song in the diary he kept, available on-line:



The theme from the specific "Broadway the hard way" version of "Outside now" is included in the Joe's garage section of this study, thus including the additional harmonies by the brass section from the 1988 tour.



Jezebel boy, opening. Transcription: KS (update Fall 2019, deposited at the I-depot,

13. After dinner smoker

"After dinner smoker" is yet another solo in Dorian, this time over an A pedal note by the bass. It begins with what you might call the lead motif of this solo A-G-Eb-D, descending. It returns all through the solo in different forms, with variations upon its movement and about always different rhythms:

- 0:00-0:07: first appearance, just by itself.
- 0:08-0:10: repetition, setting off the soloing.
- 0:15-0:16: A-Eb-D in a different rhythm.
- 0:28-0:29: likewise.
- 1:44-1:45: variation upon this figure, A-D-D-C-C.
- 1:55-2:00: variation upon its movement, F#-E-C-B-C, a lot like a transposition.
- 2:01-2:02: A-Eb-D.
- 2:09-2:10: idem.
- 2:57-3:00: F#-E-C-B-C, the notes bar 2 of the example below begins with.
- 3:12-3:13: A-F#-D, at the start of bar 6 of the example.
- 4:15-4:17: F#-E-B-C, twice.

The variations of motifs is standard procedure during Zappa's solos. In this case you've got one returning over a longer period. Another feature of this solo is the frequent use of sequences of chords, using the same interval (parallel) or varying the interval as minor and major along the A Dorian scale:

- 1:04-1:07: parallel minor thirds.
- 2:42-2:46: thirds, following the scale.
- 3:01-3:04: idem, bar 3 from the example above.
- 3:06-3:10: parallel major triads, bars 4 and 5 from the example, including the quituplet. The parallel playing is causing a lot of notes being altered, with these bars becoming chromatic.
- 3:26-3:39: thirds, neither parallel, neither following the scale. Another chromatic passage.
- 3:43-4:15: triads following the scale.
- 4:20-4:23: thirds following the scale.



After dinner smoker, section. Transcription: KS (update 2020, deposited at the I-depot, The Hague).