

Klangcollagen

Fortbildung für Fachkräfte des Gymnasium Horn

13.12.2019 - Theater Kontor , Bremen

Riccardo Castagnola

das Hören

S. 3

**Geschichte der
Klangcollagen**

S. 73

**Tonaufnahme
Technik**

S. 86

**Editing &
Klangbearbeitung**

S. 92

Text, Bild und Klang

S. 125

das Hören

WIE

hören wir,

wenn wir der Welt zuhören ?

die Hörmodi

Suche nach Informationen über

Kausales H.

**URSPRUNG
URSACHE**

Kontext

Geste

Material

reduziertes H.

INHALT

Spektrum

Dynamik

Zeit - Artikulation

Raum

Semantisches H.

Code (Sprache)

“Audio-vision” Michel Chion (1990)

WAS

hören wir,

wenn wir der Welt zuhören ?

Was

FORM

in welchen zeitlichen / räumlichen Zusammenhang sind diese Klänge ?

INTERPRETATION

welche Information / Bedeutung übertragen diese Klänge

ASSOZIATION

welche Verbindungen erwacht diesen Klang in meiner Innerlichkeit?

URSPRUNG / URSACHE

aus welchem Kontext kommt dieser Klang ?

wer / was hat diesen Klang verursacht und wie ?

INHALT

woraus besteht dieser Klang ?

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wer / was hat diesen Klang verursacht und wie ?

INHALT

woraus besteht dieser Klang ?

Was

4 Comprendre

FORM

in welchen zeitlichen / räumlichen Zusammenhang sind diese Klänge ?

INTERPRETATION

welche Information / Bedeutung übertragen diese Klänge

2 Oüir

ASSOZIATION

welche Verbindungen erwacht diesen Klang in meiner Innerlichkeit?

1 Ecouter

URSPRUNG / URSACHE

aus welchen Kontext kommt dieser Klang ?

wer / was hat diesen Klang verursacht und wie ?

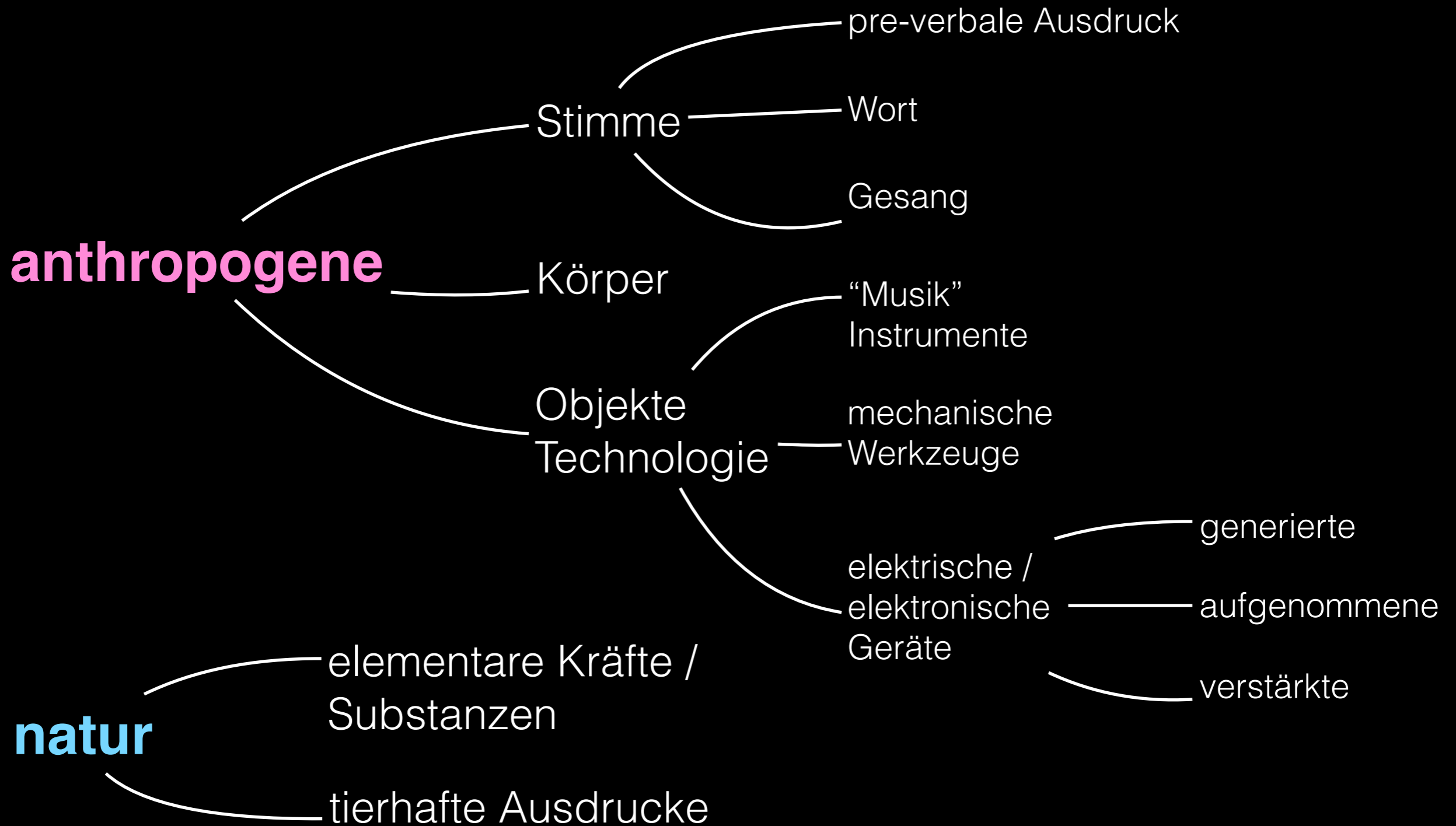
INHALT

woraus besteht dieser Klang ?

3 Entendre

URSPRUNG

aus welchem **Kontext**
kommt diesen Klang ?



URSACHE

welche **Geste**
hat einen Klang verursacht ?

Mechanische

Schlagen

Drucken

Zupfen

Anreiben

Blasen

Elektrische — Oszillieren

mit welchen
Material ?

Festkörper

Metall
Holz
Fell
Seil
Darm
...

Flüssigkeiten

Wasser
Lymphe
...

Gase

Luft
Helium
...

INHALT

woraus besteht dieser Klang ?

Frequenzen

Spektrum

hoch
-
tief

Dynamik

laut
-
leise

Dauer

lang
-
kurz

Raum

nah geöffnet
- -
entfernt geschlossen

INHALT

woraus besteht dieser Klang ?

Frequenzen

Spektrum

hoch
-
tief

Dynamik

laut
-
leise

Dauer

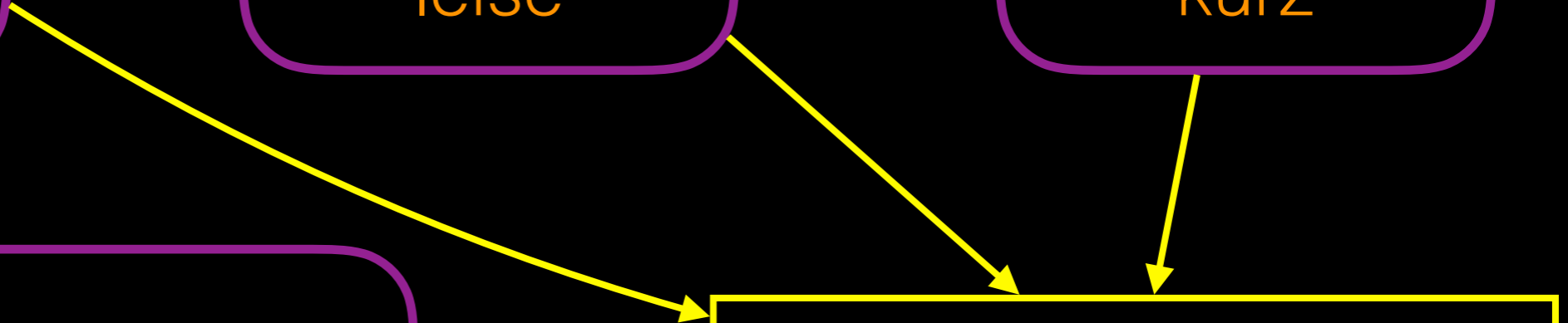
lang
-
kurz

Raum

nah geöffnet
- -
entfernt geschlossen

Artikulation

Entwicklung des Inhalts
in der Zeit



Was

Index für

INHALT



**URSPRUNG
URSACHE**

Spektrum

Frequenz

Material

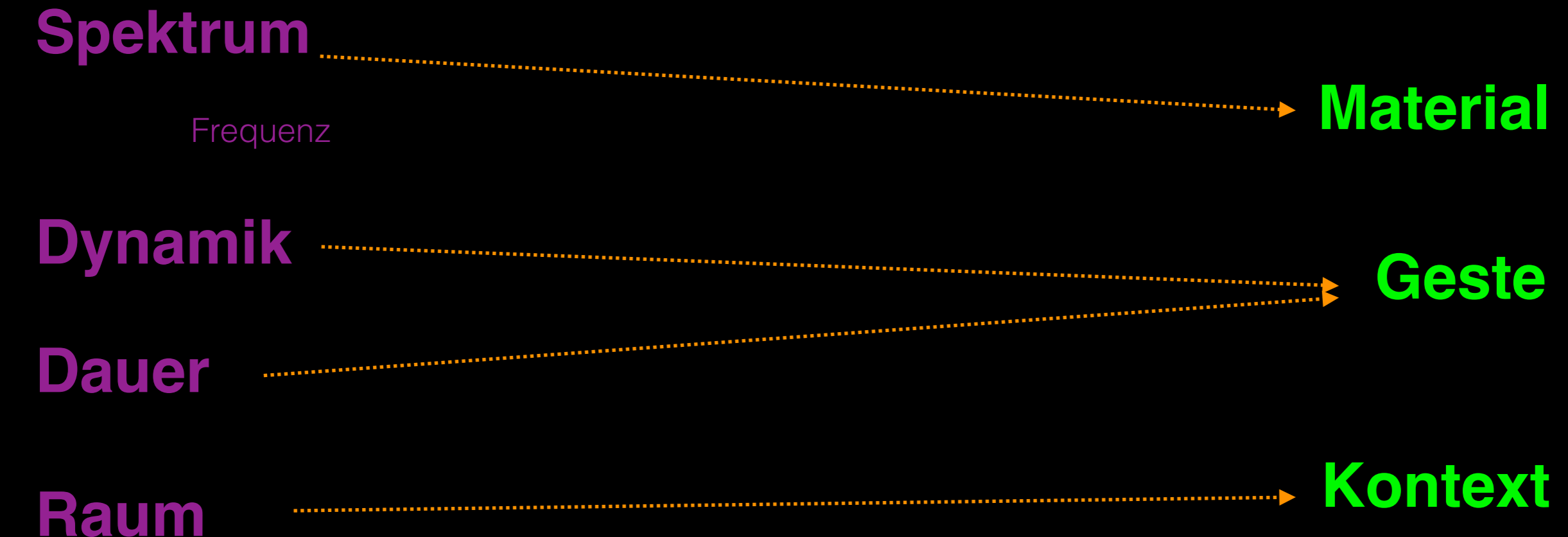
Dynamik

Geste

Dauer

Kontext

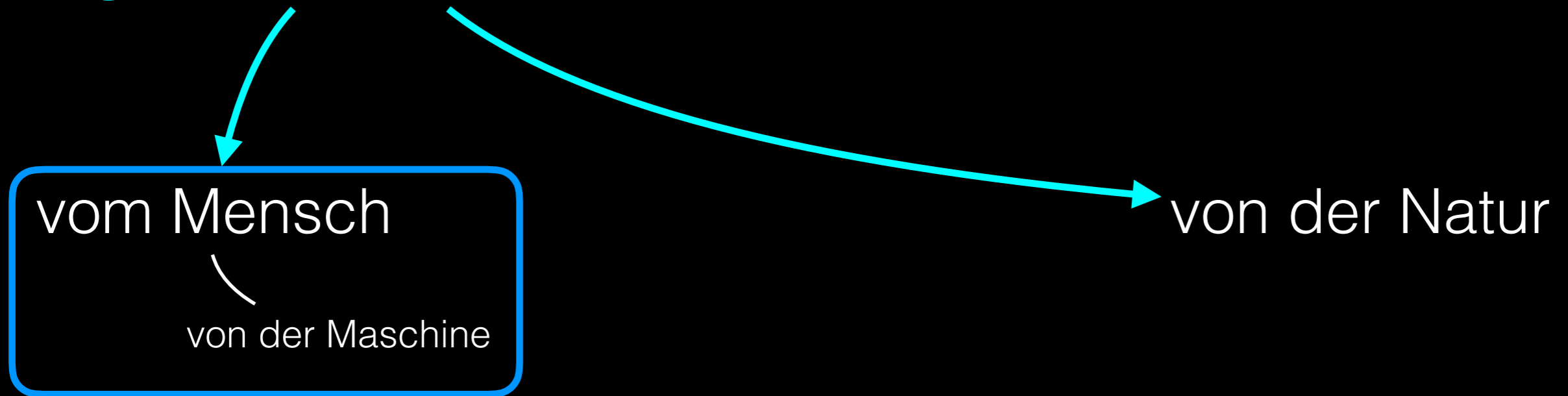
Raum



FORM

wie interagieren diese Klänge in der Zeit-Raum ?

Organisation des Materials



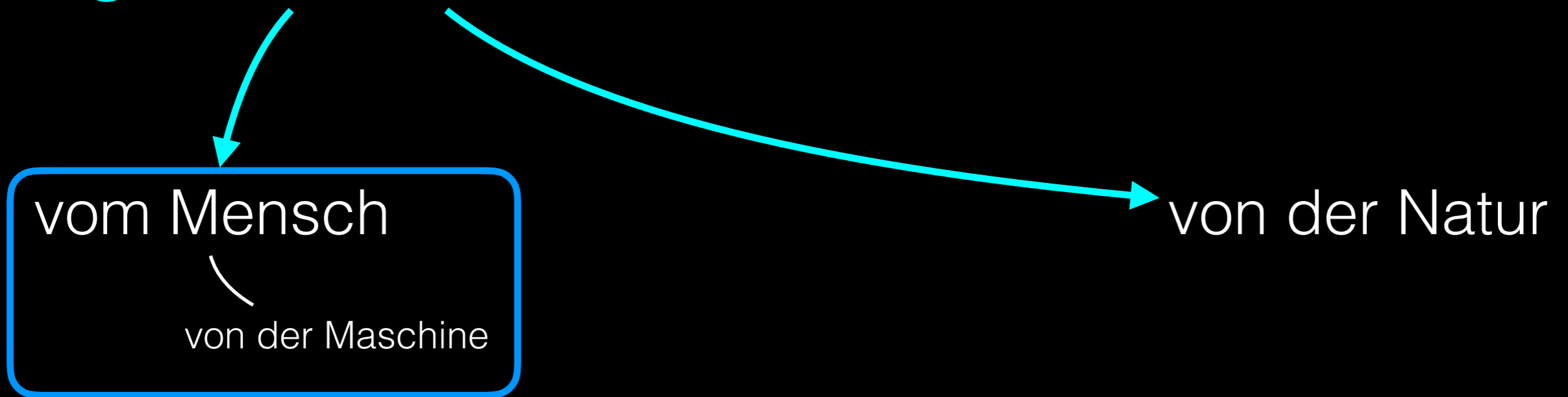
MUSIK

?

FORM

wie interagieren diese Klänge in der Zeit-Raum ?

Organisation des Materials



MUSIK

?

.... in der

Zeit / Raum

?

festgelegt

zufällig
nicht festgelegt

ASSOZIATION

welche **Verbindungen**
erwacht diesen Klang
in meiner Innerlichkeit?

Klang-Bilder

Subjektiv

Erinnerungen

psychologische
Stimmungen

Phantasien

trans-kontextuale
Verknüpfungen

...

ASSOZIATION

Blind Listening

einen Klang zuhören, ohne seine Quelle zu sehen

ASSOZIATION

welche Atmosphäre erwacht diesen Klang in mir?

Zug



ASSOZIATION

Blind Listening

einen Klang zuhören, ohne seine Quelle zu sehen

ASSOZIATION

Blind Listening

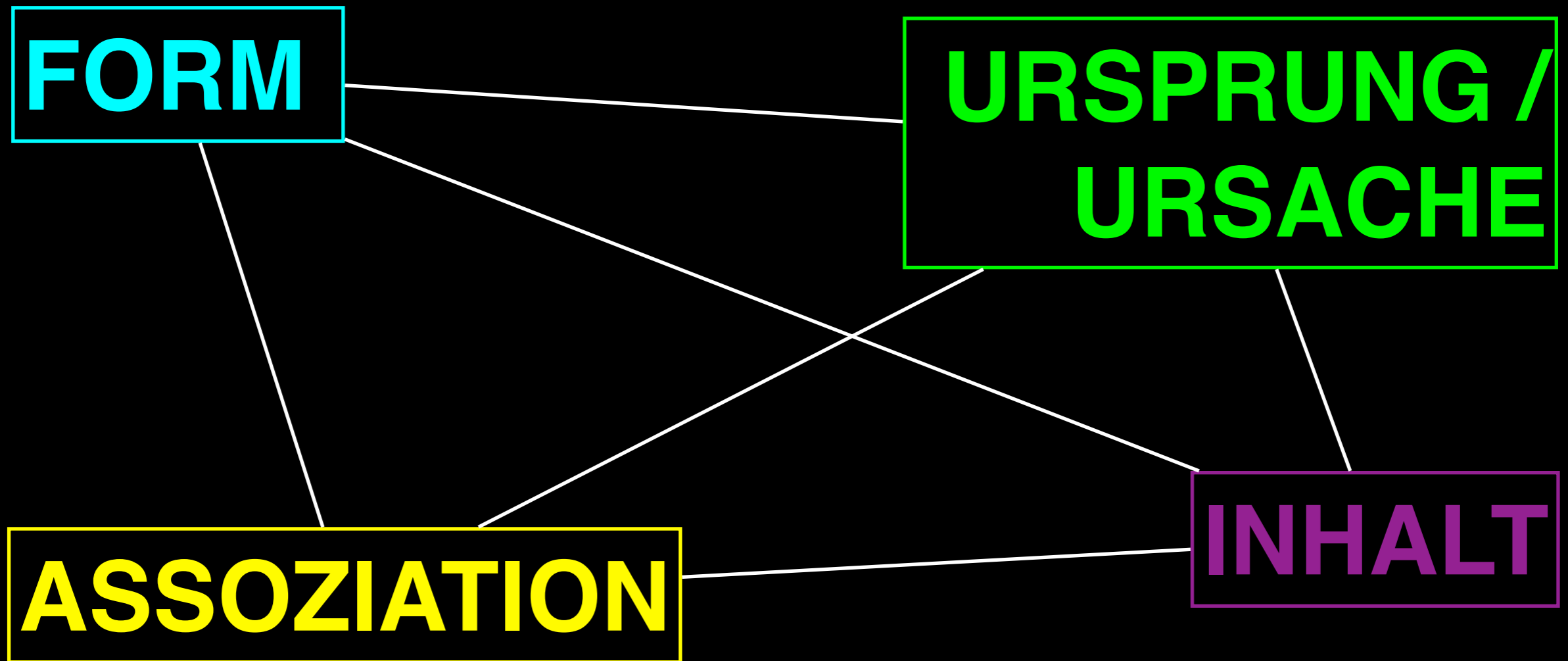
einen Klang zuhören, ohne seine Quelle zu sehen

Wasserkocher



INTERPRETATION

was **bedeuten / kommunizieren**
die Zusammenhänge zwischen ...



Le son fixé

Fixierung des Klanges

auf einem **Träger**
(mechanische Wiederholung)



wie ändern sich unsere
Strategien des Hörens

Le son fixé

in der Medienwelt

(Funk, Telefon, Tonaufnahme ...)

ohne sichtbare Klangquelle

=

(akusmatisch)



écoute réduite

auf die reine Wahrnehmung
der klanglichen Charakteristik reduziert

ohne Suche nach seine Klangquelle

Le son fixé

Akusmatik

(griechisch Akousma „auditive Wahrnehmung“)

bezeichnet eine Musik, deren **Klangerzeugungsmittel nicht sichtbar** und meist auch **nicht identifizierbar** sind.

Es entsteht eine Situation reinen Hörens, da die **Aufmerksamkeit nicht** durch eine sichtbare oder vorhersehbare Klangquelle **beeinflusst** wird.

Le son fixé

Akusmatik

bezieht sich auf eine **Pythagoras**-Überlieferung, der zufolge nur seine engsten Schüler ihn bei seinem Unterricht sehen durften.

Die neuen Schüler mussten **hinter einem Vorhang** Platz nehmen und konnten so weder die **erklärenden Gesten** noch die **Physiognomie** des Pythagoras sehen.

Ihnen fehlten somit alle visuellen Informationen, sodass ihr **Verständnis** des Unterrichts lediglich durch ein **intensives Hören** möglich war. Diese Schüler wurden *Akusmatiker* genannt, da sie auf die akustische Wahrnehmung angewiesen waren.

Le son fixé

1877 - **Phonograph** (Thomas. Edison) USA
Wachswalzen

Le son fixé

1877 - **Phonograph** (Thomas. Edison) USA
Wachswalzen

1889 - **Gramophone** (Emil Berliner) USA
Schellackschallplatte

Le son fixé

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1926 - **Vitaphone** (Phonograph Technologie)

1927 - **first sound film** — The Jazz Singer (Alan Crosland)

1929 - Ende Phonograph

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Le son fixé

Pierre Schaeffer (1910 - 1995)

Le son fixé

Pierre Schaeffer (1910 - 1995)

1936 - Radio Télévision Française in Paris (Ingenieur)

1944 - Studio d'essai

(**Experimenten** mit aufgenommenen Klänge auf Schallplatten)
unvorhersehbare Hörerfahrungen

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Pierre Schaeffer (1910 - 1995)

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1944 - Studio d'essai

(**Experimenten** mit aufgenommenen Klänge auf Schallplatten)
unvorhersehbare Hörerfahrungen

neue **Gehörsituation** (*akusmatisch*)

neue **Kompositions-Techniken** / -**Ästhetik**

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[video]

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neue **Gehörsituation** (*akusmatisch*)

neue **Kompositions-Techniken** / -**Ästhetik**

[*video*]

1948 - **Musique Concrète**

>> Fokus auf der klangliche Qualitäten des
>> Klanges in sich

!!! konkret bedeutet nicht "aus der sachliche Realität" !!!

Le son fixé

Sillon fermé

(geschlossene Rille)

Le son fixé

Sillon fermé

(geschlossene Rille)

obsessive mechanische Wiederholung eines kurzen aufgenommenen Klanges

[video]

LOOP (originale audio Beispiel aus dem Archiv)

Le son fixé

Sillon fermé

(geschlossene Rille)

obsessive mechanische Wiederholung eines kurzen aufgenommenen Klanges



[video]

LOOP (originale audio Beispiel aus dem Archiv)

Verfremdung

der originalen Klangidentität

“ L'idée est venue à Schaeffer lors d'une expérience perceptive triviale - l'écoute obstinée du même fragment de 78 tours rayé - qui lui fit réaliser que l'audition en boucle d'un fragment de réel arraché de son contexte provoquait un effet sans commune mesure [...]”

Le son fixé

Cloche coupé

(geschnittene Glocke)

Le son fixé

Cloche coupé

(geschnittene Glocke)

Bearbeitung der Morphologie eines Klanges durch die Veränderung seiner natürlichen Hüllkurve.

Editing

Le son fixé

Cloche coupé (geschnittene Glocke)

Bearbeitung der Morphologie eines Klanges durch die Veränderung seiner natürlichen Hüllkurve.



Editing

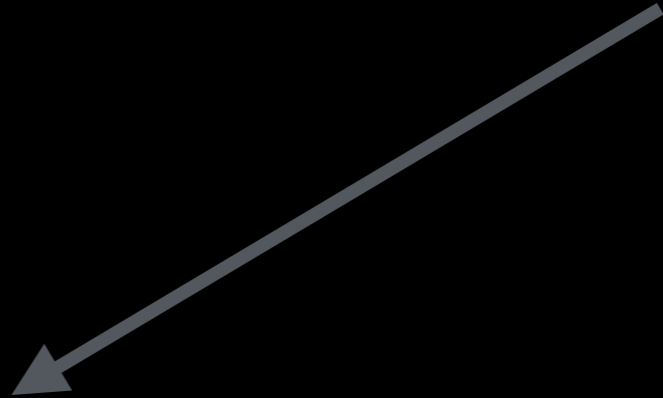
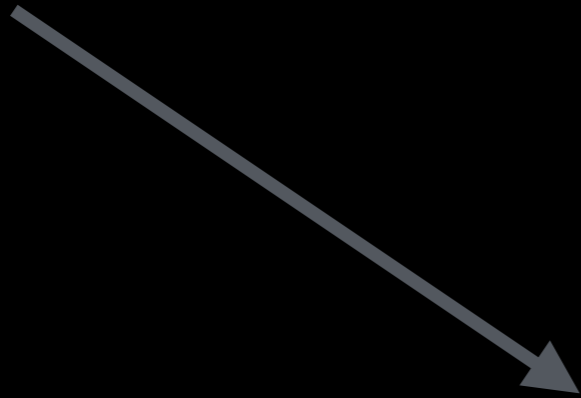
Störung der Suche nach der Klangquelle
extra-klanglichen Kontext

Le son fixé

écoute réduit

sillon fermé

cloche coupé



Klang

=

objet sonore

Le son fixé

écoute réduit

sillon fermé

cloche coupé

Klang

=

objet sonore

objet musical

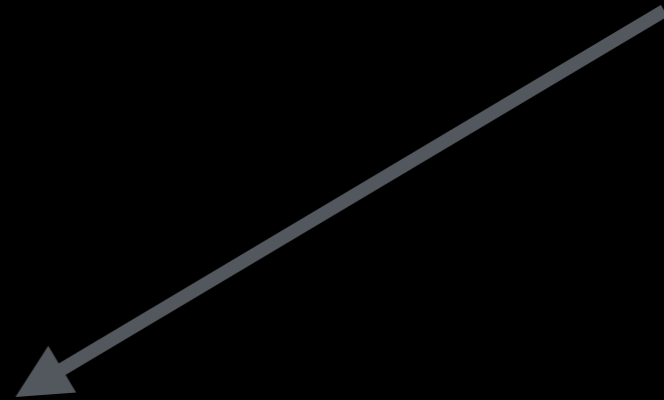
durch die Gestaltung und
die Organisierung in der
Form

Le son fixé

écoute réduit

sillon fermé

cloche coupé



Klang

=

objet sonore

durch die Gestaltung und
die Organisierung in der
Form



objet musical

keine **a priori** qualitative
Trennung zwischen
Ton und **Geräusch**
als potenzielle musikalische
Material

Écoute

- **Étude aux chemins de fer**, Pierre Schaeffer (1948)
- **Symphonie Pour un Homme Seul**, P. Schaeffer - P. Henry (1949-50)
- **Variation pour une porte et un soupir**, Pierre Henry (1963)
- **Espaces Inhabitables** (Jardins de rien), François Bayle (1967)
- **Jeîta Ou Murmure Des Eaux**, F. Bayle (1970)

Typo-Morphologie

es fehlt ein Bezug mit

+ Kontext

+ Raum

+ Identität der originale Quelle

+ Interpretationsebene

Typo-Morphologie

es fehlt ein Bezug mit

+ Kontext

+ Raum

+ Identität der originale Quelle

+ Interpretationsebene

Image-de-Son

Image-de-Son

François Bayle (1932 -)

"Musique acousmatique. propositions ... positions", 1993

Image-de-Son

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aufgenommenen Klang ist eine **Darstellung des Klanges**

Image-de-Son

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aufgenommenen Klang ist eine **Darstellung des Klanges**

durch seine **Projektion im Raum**
(mit Lautsprecher)

Image-de-Son

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"Musique acousmatique. propositions ... positions", 1993

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wird einen **konkrete existierenden Objekt**

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wird einen Element einer **integrierten musikalischen Sprache**

Image-de-Son

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(mit Lautsprecher)

wird einen **konkrete existierenden Objekt**

wird einen Element einer **integrierten musikalischen Sprache**

(**konkret** / Icon >> **abstract** / symbol)

Image-de-Son

Eigenschaften

Icon

image isomorphe

das Bild reproduziert ein Model

Image-de-Son

Eigenschaften

Icon

image isomorphe

das Bild reproduziert ein Model

Index

image indicielle, diagramme

Merkmale die charakterisieren ein Objekt nach Angrenzung

Image-de-Son

Eigenschaften

Icon

image isomorphe

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image indicielle, diagramme

Merkmale die charakterisieren ein Objekt nach Angrenzung

Symbole

metaphore

assoziative abstrakte Darstellung des Objekts

Image-de-Son

Eigenschaften

Icon

image isomorphe

das Bild reproduziert ein Model

Index

image indicielle, diagramme

Merkmale die charakterisieren ein Objekt nach Angrenzung

Symbole

metaphore

assoziative abstrakte Darstellung des Objekts

dank der fehlenden Verbindung mit seiner Quelle

Image-de-Son

Icon

Index

Symbole

Image-de-Son

Icon

kurze dichte unregelmäßige
Rhythmische Patterns von Geräusch

Index

Symbole

Image-de-Son

Icon

kurze dichte unregelmäßige
Rhythmische Patterns von Geräusch

Index

Feuer in einem Kamin

Symbole

Image-de-Son

Icon

kurze dichte unregelmäßige
Rhythmische Patterns von Geräusch

Index

Feuer in einem Kamin

Symbole

Haus, Heim, Familie, Einsamkeit, Winter ...

Zuhören Arten

comprendre

comprehending

**Interpretation der ganzen
Bedeutung**

(Klang = Zeichen einer Sprache)

écouter

listening

Suche nach der Klangquelle

(Klang = Index einer Quelle / Aktion)

entendre

hearing

aktiv Zuhören

(Klang = selektiv und subjektiv)

ouïr

perceiving

passive Wahrnehmung

(Klang = rohe Element)

Zuhören Arten

écouter

listening

Index

Identifikation

entendre

hearing

Symbole

aktiv Zuhören

ouïr

perceiving

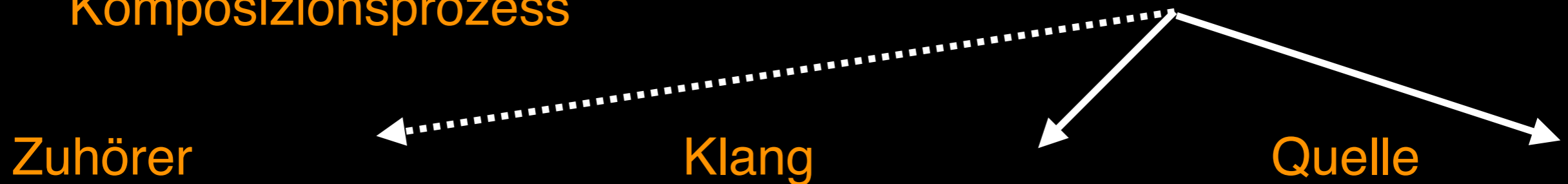
Icon

pysiologische Zeichen

Schlußwort

- die **Gehörstrategie** sind **nicht steuerbar** durch die **Komposition beeinflussbar**

- wo Stellt sich der **Komponist** / Klangkünstler in der Kompositionsprozess

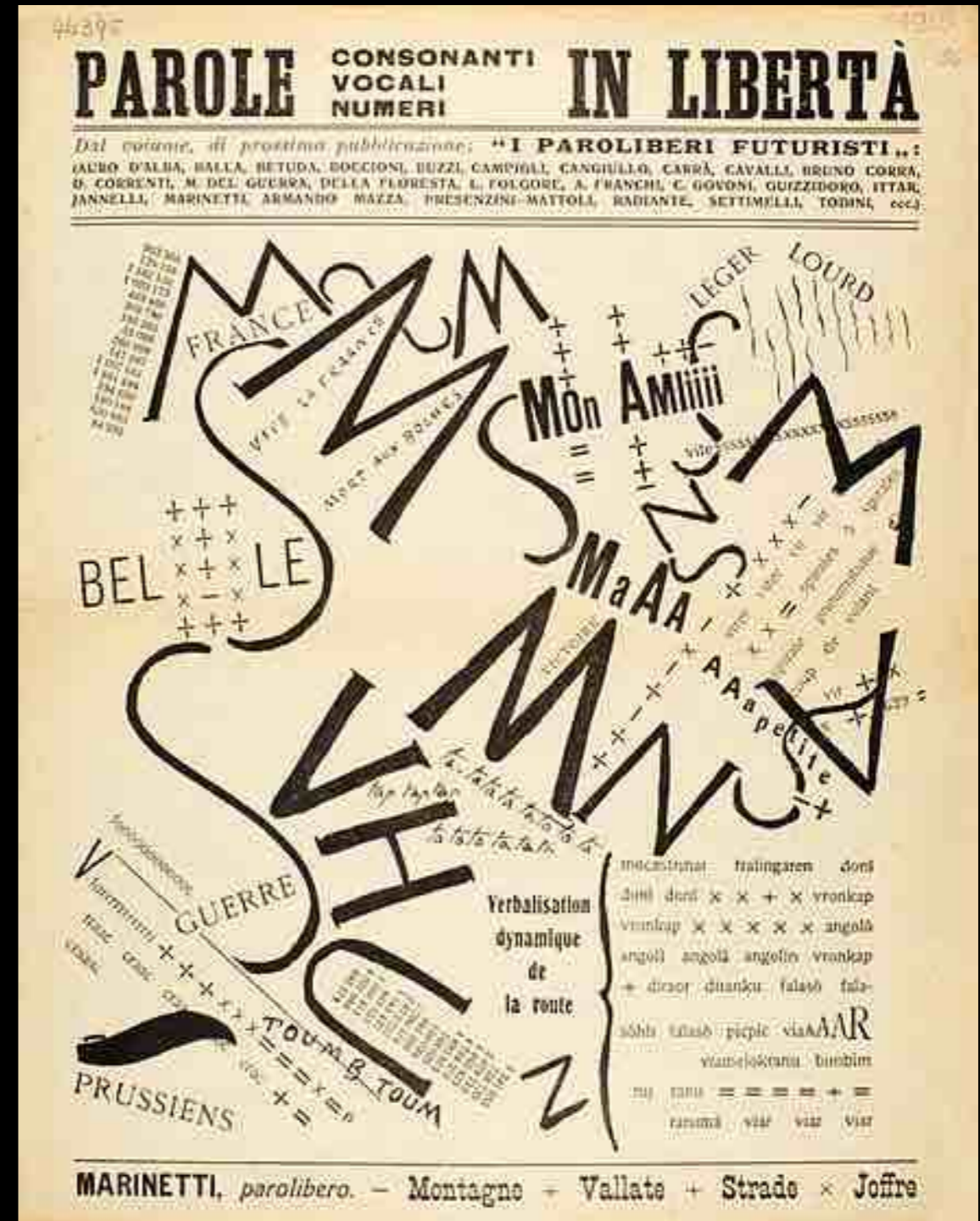


das Primat des Gehörs

Geschichte der Klangcollagen

| | |
|--|--------------------------------|
| 1913 - F. T. Marinetti , <u>Zang Tumb Tumb</u> | <u>Klangpoesie</u> |
| 1930 - Walter Ruttmann , <u>Weekend</u> | <u>erste Klangcollage</u> |
| 1948 - Pierre Schaeffer , <u>Cinq Étude de bruits</u> | <u>musique concret</u> |
| 1952 - John Cage , <u>Williams Mix</u> | <u>Klangkollage mit Zufall</u> |
| 1970 - Luc Ferrari , <u>Presque rien n°1</u> | <u>musique anecdotique</u> |
| 1973-77 - Trevor Wishart , <u>Red Bird</u> | <u>Stimme & Symbole</u> |
| 1975 - Bernard Parmigiani , <u>De natura sonorum</u> | <u>musique acousmatique</u> |
| 1985 - Jean-Claud Risset , <u>Sud</u> | <u>Natur und Elektronik</u> |
| 1996 - Hildegard Westerkamp , <u>Cricket Voice</u> | <u>musikalisierte Natur</u> |
| 1997 - Denis Smalley , <u>Empty Vessels</u> | <u>minimale Editing</u> |
| 2015 - Riccardo Castagnola , <u>tennis stones calm Solveig unfinished</u> | <u>dekonstruierter Text</u> |

Filippo Tommaso Marinetti



1913 - F. T. Marinetti, Zang Tumb Tumb

Walter Ruttmann



Unter großem technischem Aufwand sammelt Walter Ruttmann in Berlin Tonaufnahmen eines Wochenendes, vom Feierabend am Samstag bis zum neuen Wochenbeginn am Montagmorgen. Das gut elfminütige Stück changiert zwischen Erzählung und Klangbild. Ruttmann arbeitet mit einem erzählerischen und auch visuellen Ohr an einer Art fotografischer Hörkunst. Zwar macht er auch Ansätze, die Struktur nach musikalischen Gesichtspunkten wie Tonhöhe und Rhythmus zu montieren (siehe die Abbildung seiner Notation einer Sprachsequenz). Der Duktus von »Weekend« ist aber durchgehend erzählerisch: Klangfarbe, Rhythmus und Tonhöhe gestalten die Erzählung nur aus.

Golo Föllmer (<http://www.medienkunstnetz.de/works/weekend/>)



1930 - **Walter Ruttmann**, Weekend

Pierre Schaeffer



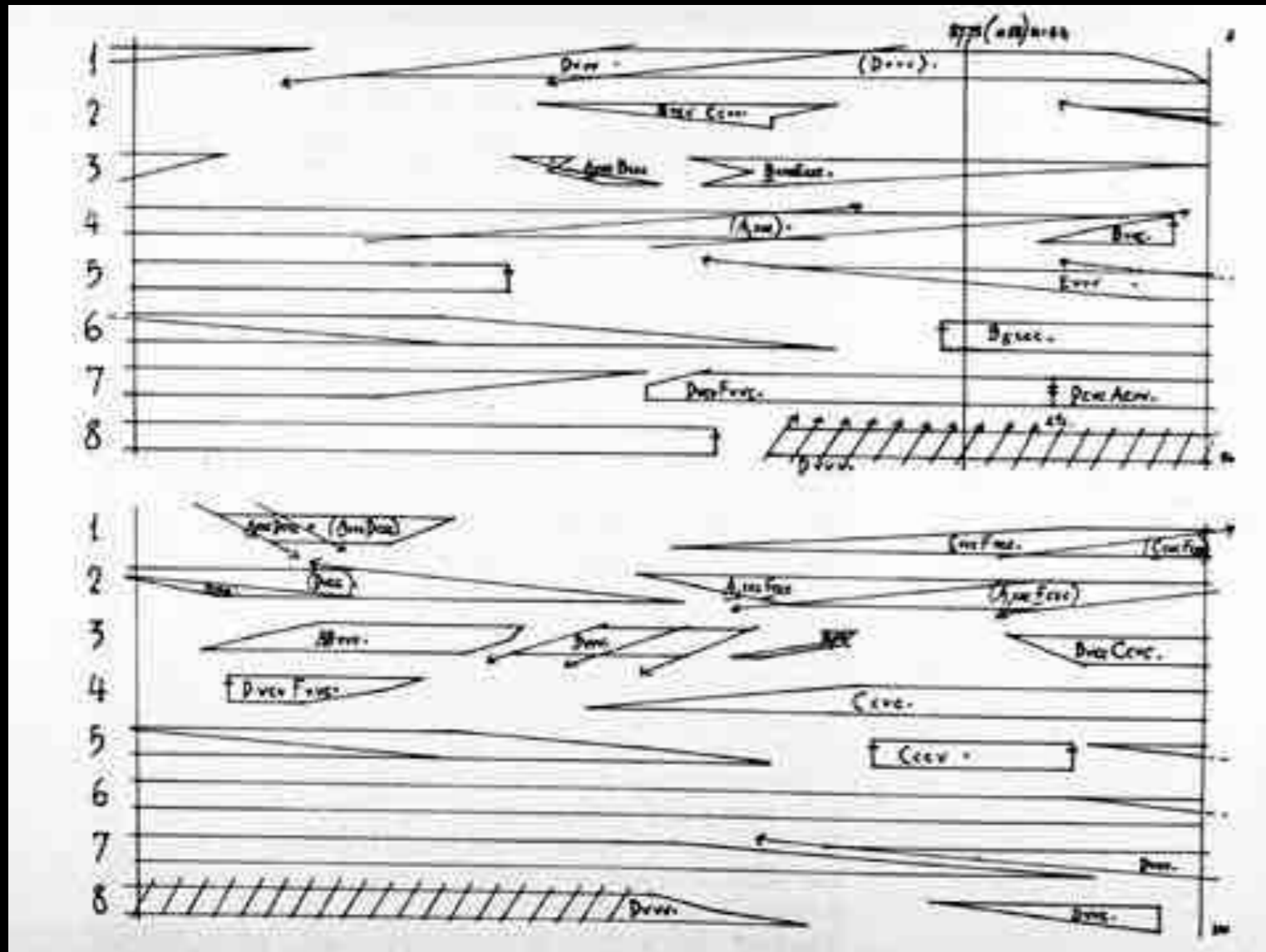
Die Geräusch-Collage »Études aux chemins de fer« gilt als erstes Musikstück, das Geräusche nach einer gänzlich musikalischen Ästhetik organisiert. Seine erste öffentliche Darbietung in der Radiosendung »Concert des bruits« in Paris am 5. 10. 1948 zusammen mit vier anderen Geräusch-Collagen markiert die Geburtsstunde der französischen Schule der »Musique concrète«, die ursächlich von konkret vorliegenden Klängen als Material ausgeht und daraus jeweils spezifische Gestaltungsregeln ableitet.

Die »Études aux chemins de fer« basiert auf Aufnahmen, die Schaeffer auf dem Pariser Gare de Batignolles mit Hilfe von sechs nach seinen Anweisungen »improvisierenden« Lokomotivführern gemacht hatte. Bei der kompositorischen Umsetzung zielte Schaeffer u.a. durch Verfremdungstechniken darauf, die semantische Komponente der Geräusche zu tilgen und ihre musikalischen Werte wie Rhythmus, Klangfarbe und Tonhöhe hervorzuheben.

1948 - **Pierre Schaeffer**, Cinq Étude de bruits

Golo Föllmer

John Cage

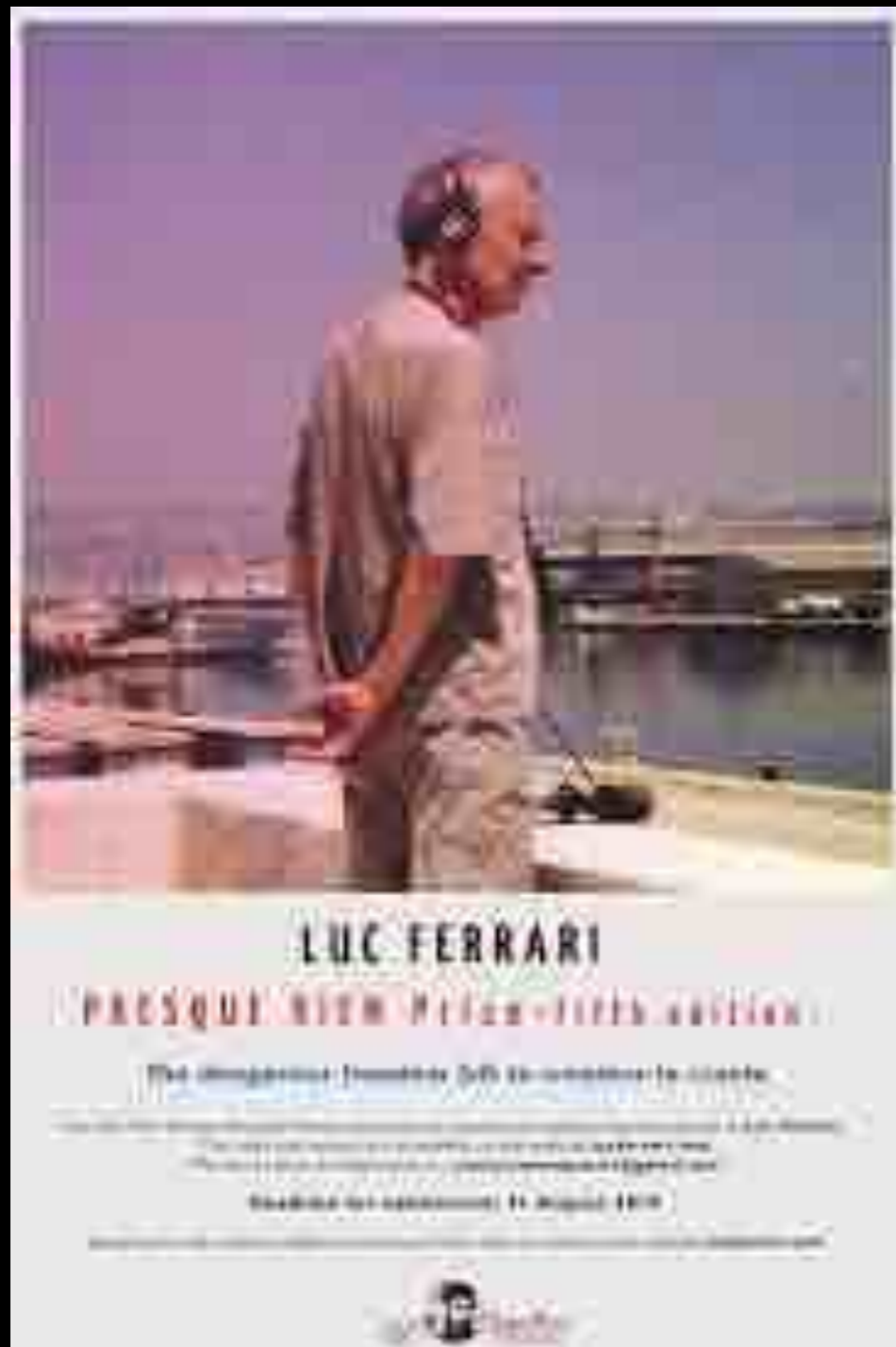


Cages erste Komposition für Tonband geht schon an die Grenzen des Mediums. Er erläutert zu der Partitur: »This is a score (192 pages) for making music on magnetic tape. Each page has two systems comprising eight lines each. These eight lines are eight tracks of tape and they are pictured full-size so that the score constitutes a pattern for the cutting of tape and its splicing. All recorded sounds are placed in six categories ... Approximately 600 recordings are necessary to make a version of this piece. The composing means were chance operations dervied from the I-Ching.« (Quelle: John Cage, Werkverzeichnis Edition Peters, New York 1962, S. 41.)

Die bisher einzige Realisierung dieser Partitur stammt von Cage selbst. Trotz der Unterstützung durch Earl Brown und David Tudor beim Schneiden und Kleben der Tonbänder dauerte die Fertigstellung der nur vier Minuten langen komplexen Klangmontage circa ein Jahr. Die Aufführung erfolgt mit vier Stereotonbandgeräten und acht Lautsprechern. Dieter Daniels

1952 - **John Cage**, Williams Mix

Luc Ferrari



Presque Rien illustrates, or rather insinuates without knowing it, a “minimalist” step about which one will speak much in the following years.

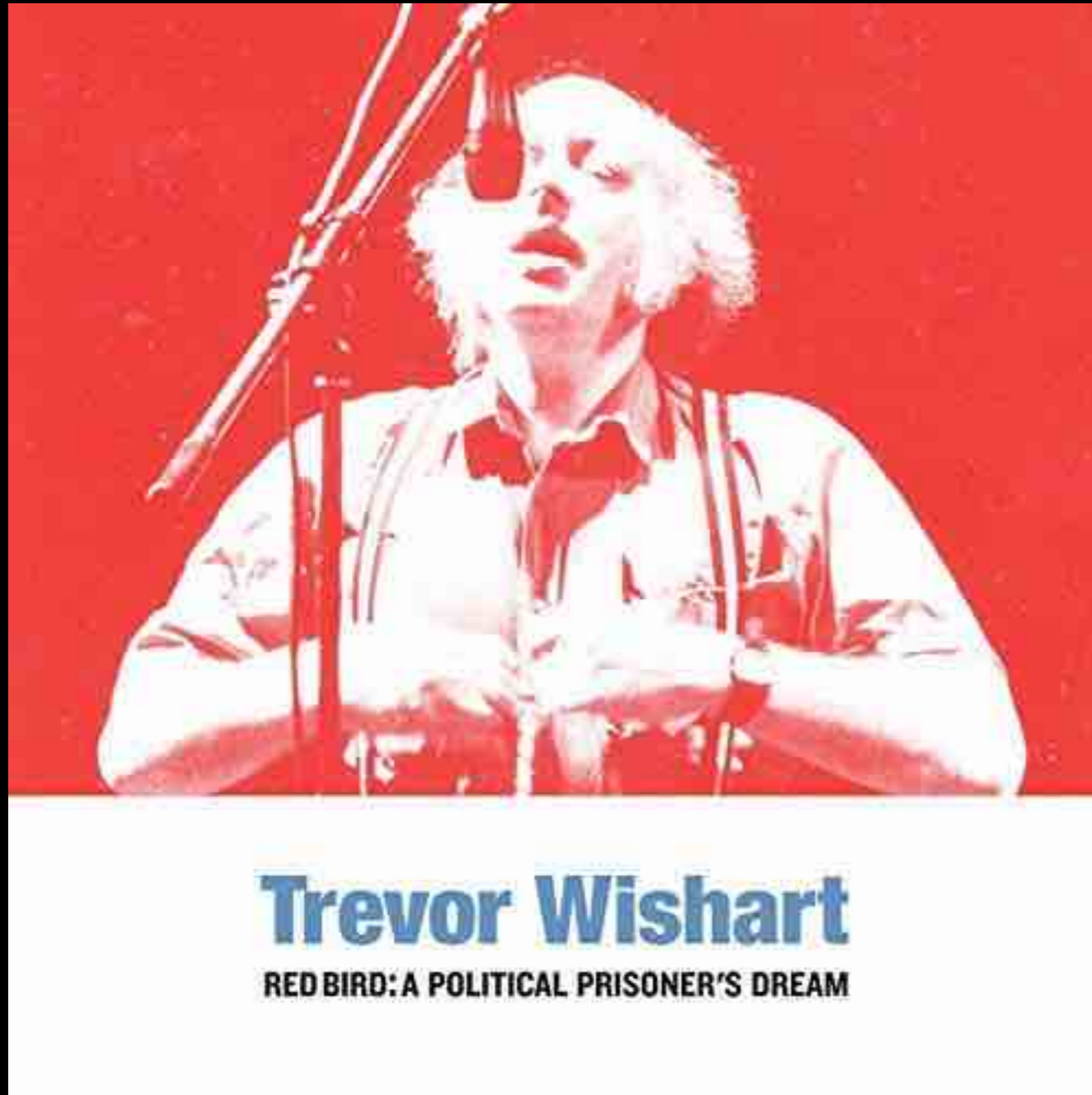
Indeed, Presque Rien N° 1 or the day raise at the seaside, composed between 1967 and 1970, is a piece that materializes the rupture with the traditional electroacoustic practices.

It asserts clearly (still more directly than what was called, after Hétérozygote, anecdotic music), the shot sequence and the fixed sound image, kind of slide which would give to understand a section of reality, like work method, and means of releasing oneself from the practices

[...]

Brunhild Meyer

Trevor Wishart



Red Bird was composed between 1973 and 1977, using the studio of the University of York Music in UK. Wishart's compositional interests deal mainly with the interpolation by technological means between the human voice and natural sounds. Released in our Early Electronic series. Trevor Wishart (1946, Leeds, England) has been very active, since the early 1970s in the area of electro-acoustic music (first with tape manipulation, later with computer pieces) and music theatre pieces.

He pays special attention to the objectives of musical education, collaborative performance-projects and solo practice using original vocal techniques. In 1973 he did his doctorate dissertation at the University of York (musical composition). Since the mid 70s he has been doing systematic research into vocal-sounds and speech articulation and the possibilities for their notation and musical organisation, giving special emphasis to computer technologies. He is the author of a number of theoretical books on musical composition, philosophy and sociology and he has contributed to the design and implementation of software tools used in the creation of digital music.

1973-77 - **Trevor Wishart**, [Red Bird](#)

Bernard Parmegiani



It's a beguiling feat of spatially diffused concrète dynamics and precise electronic processing providing entry to an extraordinarily vivid and otherworldly soundsphere perfused with sheer, isolated tones, acousmatic alien scree and sudden percussion organised with an abstract yet palpable sense of dramatic narration and timing.

These are rare and incredible sounds, plucked from nature and reformed in a hyperreal ecology with its own measurements of gravity and energy informing their momentum and trajectory within fractured dimensions. Whilst ostensibly as far from pop and dance music as you'd think, the sparse and deliberate coordinates of these musical schematics or sound designs in fact feed forward into much contemporary music when considered in relation to the sampler-chopped and flung dynamics of say, '90s hardcore and jungle, thru to the simulated hyperspace of Monolake and the aerodynamic geometries of Total Freedom's Ableton sculptures.

Ultimately, it's the perfect entry point for anyone intrigued by the crenellated climes of institutional electro-acoustic music, and on a much broader level, a jaw-dropping listen for anyone into the further reaches of electronic and experimental composition.

1975 - **Bernard Parmigiani**, [De natura sonorum](#)

Jean Claude Risset



Sud (1985) uses both synthesized sound materials and recorded sounds, mostly sounds recorded near Marseille and subsequently submitted to a number of successive transformations through digital processing at INA-GRM in Paris. The piece gradually merges these two kinds of material, initially presented as distinct and separate. A major-minor scale is initially present in the synthetic sounds, while most natural sounds have no distinct pitches (for instance the sounds from the sea) or pitches over which the composer has no control (the sounds from birds or insects). However the two worlds are made to merge gradually, thanks to the imposed transformations. Thus, for instance, the scale is gradually imprinted as a grid onto sea or bird sounds by means of resonant filters tuned to the steps of the scale; the frequencies of the insect sounds are transposed to those of the scale. Conversely synthetic sounds are given the dynamic profile of natural sounds such as sea waves. This is done by means of cross-synthesis, which merges two sounds into a hybrid, in a way reminding of Paul Cézanne, who wanted to unite "curves of women with shoulders of hills". I selected a found sonic object - the ebb and flow of a wave on rough sand which I recorded one morning - as a seminal cell, used throughout the piece at different scales, from that of individual sounds onto which the flux of this object is imprinted, to that of the general form, influenced by the idea of the wave.

1985 - **Jean-Claude Risset**, Sud

Hildegard Westerkamp



Hildegard Westerkamp recording the sounds of a camel in the desert near Jaisalmer in Rajasthan, India in 1992. (Peter Grant)

.....Hildegard Westerkamp's compositions typically reflect our acoustic environment, including its urban and wilderness soundscapes, the voices of passersby, of children, of traffic and industry, and the sounds of various cultures. As in the music on this compact disc, she often includes texts, sometimes by Canadian poet Norbert Ruebsaat, sometimes her own. This CD is an exceptional compilation of her soundscapes. 'A Walk through the City' (1981), based on Ruebsaat's poem, is a tour through Vancouver's skid row, with its traffic sounds, voices, and other sounds turned into an evocative dreamlike audio panorama. In 'Fantasie for Horns II' (1979), electronic sounds derived from foghorns, trainhorns, and boathorns accompany a solo French horn. 'Kits Beach Soundwalk' (1989) is a narrative soundscape walk through Kitsilano beach in Vancouver. 'Cricket Voice' (1987), as Westerkamp describes it, "is a musical exploration of a cricket, whose song I recorded in the stillness of a Mexican desert region called the Zone of Silence ..." And 'Beneath the Forest Floor' (1992) was composed from sounds recorded in old-growth forests on British Columbia's west coast. Westerkamp says it well: "I compose with any sound that the environment offers to the microphone, just as a writer works with all the words that a language provides ... I like to use the microphone the way photographers often use the camera ..."

1996 - **Hildegard Westerkamp**,
Cricket Voice

Denis Smalley



The Empty vessels of the Ltle are some large garden pots from Crete and an olive jar from Turkey. Recordings of the air resonaLng in these vessels provided the starLngGpoint for the piece. Since these recordings were done in a garden (my garden in North London), sounds from the environment were also captured by the microphones inside the pots, and changes in the Lmbre of these sounds resulted from interacLon with the filtering effect of the resonant vessels. These "natural" transformaLons were extended through computer treatments of the sources, and they also suggested relaLons with very different types of resonant sounds. The garden paleZe was expanded by recordings made in the same environment without the benefit of the vessels' transformaLons. The resulLng work may be regarded as a journey which passes through the highly charged and more resful events, textures and spaces inspired by the Empty Vessels.

(Denis Smalley)

Riccardo Castagnola



Das unterliegenden Thema des Stückes ist ein Kampf um Balance zwischen den vielfältigen Persönlichkeiten des Ichs eines Individuums. Der klangliche und poetische Ursprung befindet sich in einer Tonaufnahme des berühmten Monolog von Lucky in „*Waiting for Godot*“ Libretto von Samuel Beckett, die Sólveig Thoroddsen (Harfenistin der HFK Bremen) vorgelesen hat. Da ihre Interpretation sehr musikalisch und vielfältig klang, wie einen idealen Treffpunkt von semantischen und klanglichen Charakteristik, habe ich versucht, das Material mit unterschiedlichen Strategien Gesichtspunkte zu untersuchen. [...]

2015 - **Riccardo Castagnola**, [tennis stones calm Solveig unfinished](#)

Tonaufnahme Technik

Klangdarstellung

... to be continued ...

Sampling

... to be continued ...

Tonaufnahme

... to be continued ...

Aufnahme PEGEL

... to be continued ...

Tonaufnahme

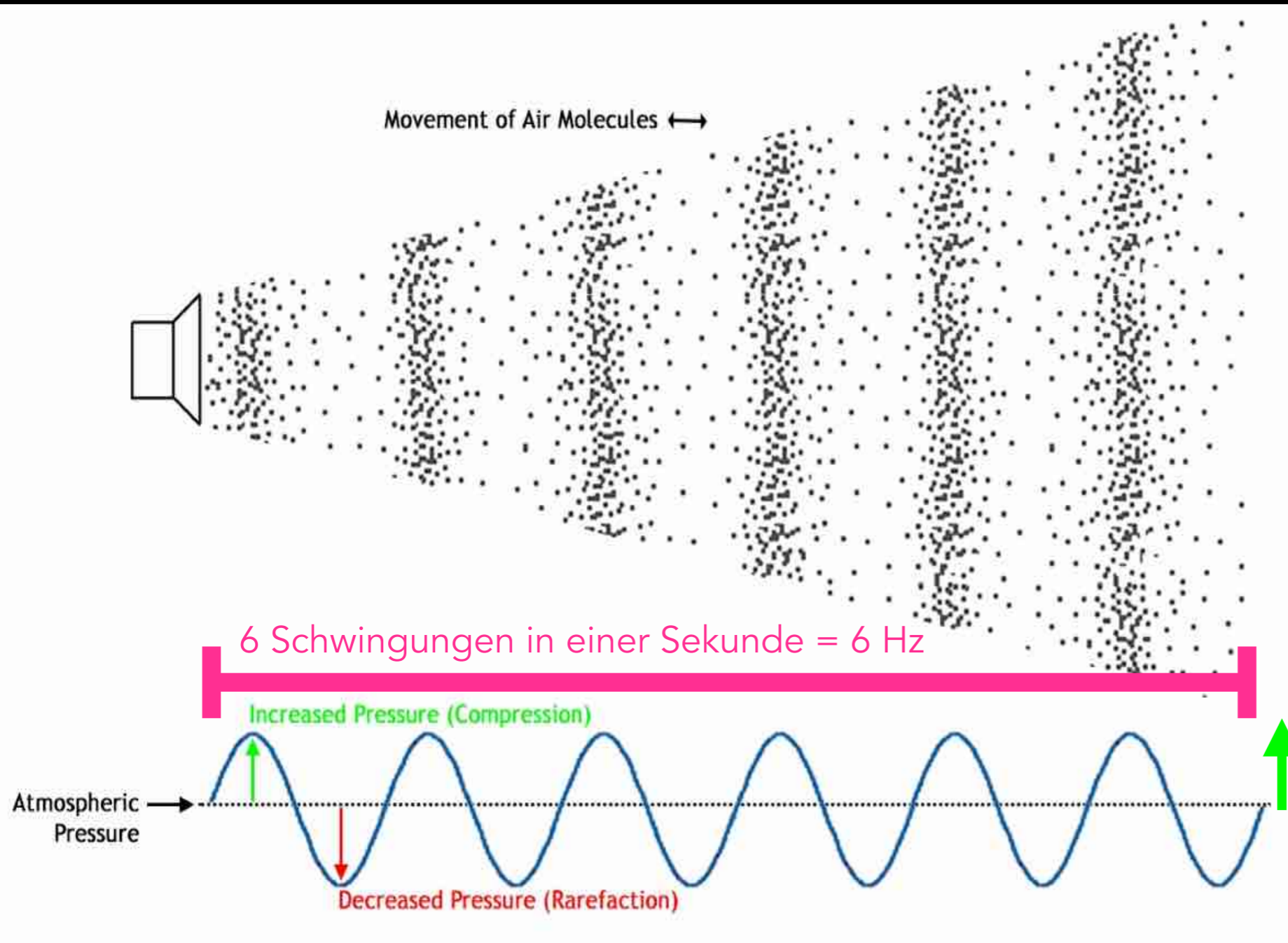
... to be continued ...

Editing

&

Klangbearbeitung

Schall



Amplitude

wie groß ist die Auslenkung
des Schwingenden Körpers
von der Ruhelage
in einer Zeitpunkt

Frequenz
(Hz)

wie oft schwingt eine Moleküle
zwischen maximalen und minimalen Auslenkung
(von ihren Ruhrezustand)
in einem Zeitabstand (1 Sekunde)?

Klang Visualisierung

Wellenform



Klang Visualisierung

Wellenform

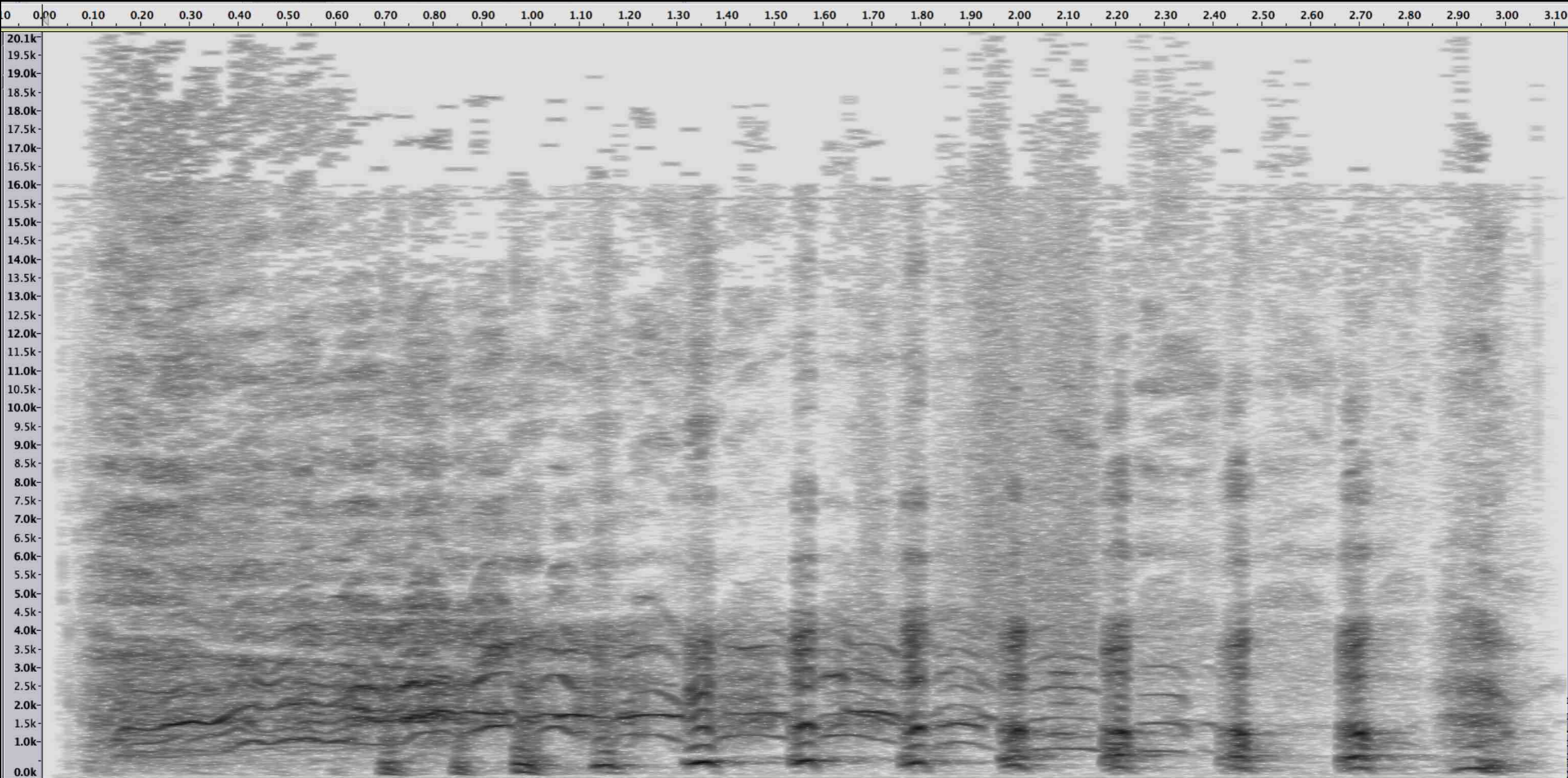
Amplitude



Zeit

Klang Visualisierung

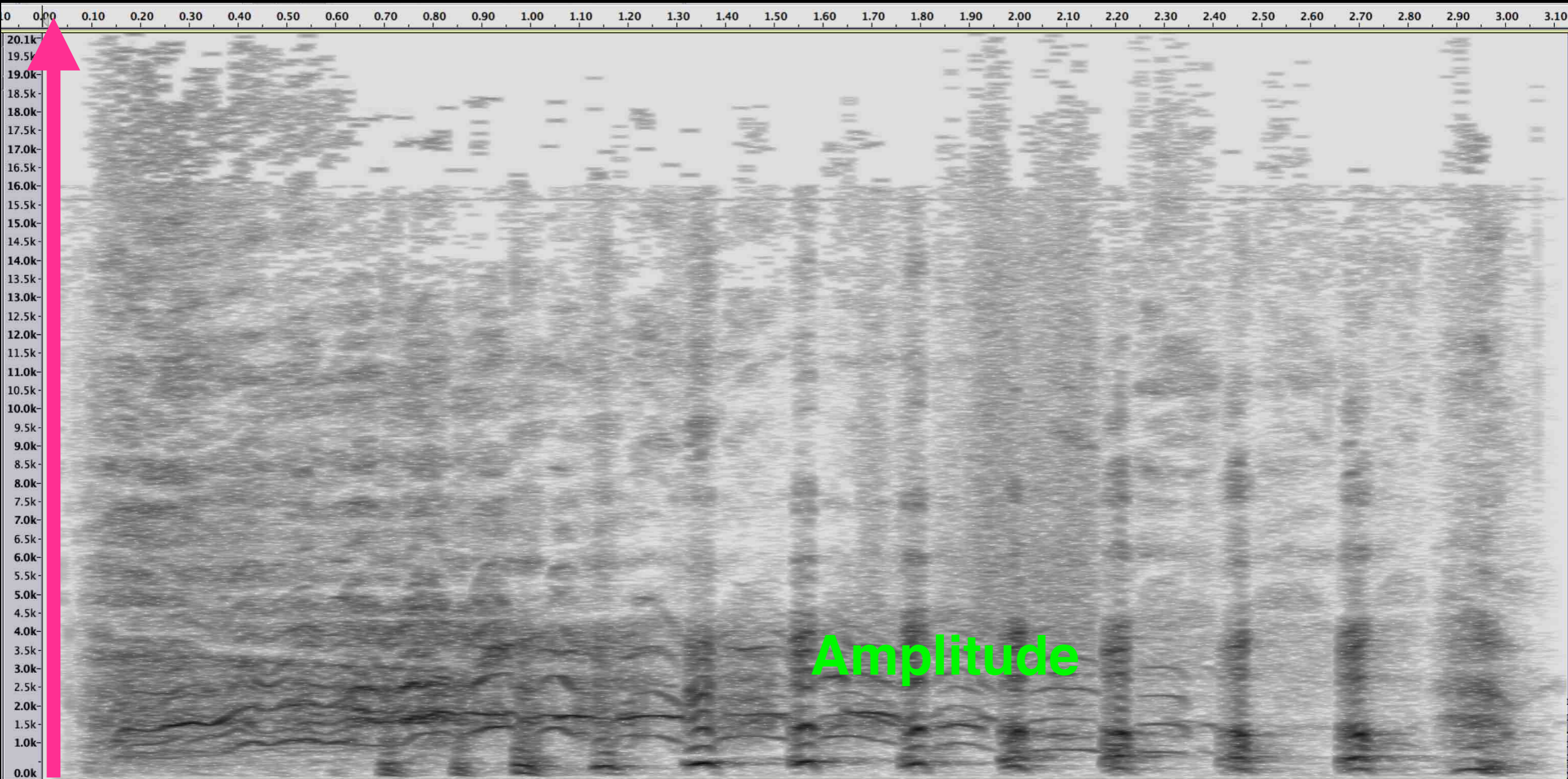
Spektrogramm



Klang Visualisierung

Spektrogramm

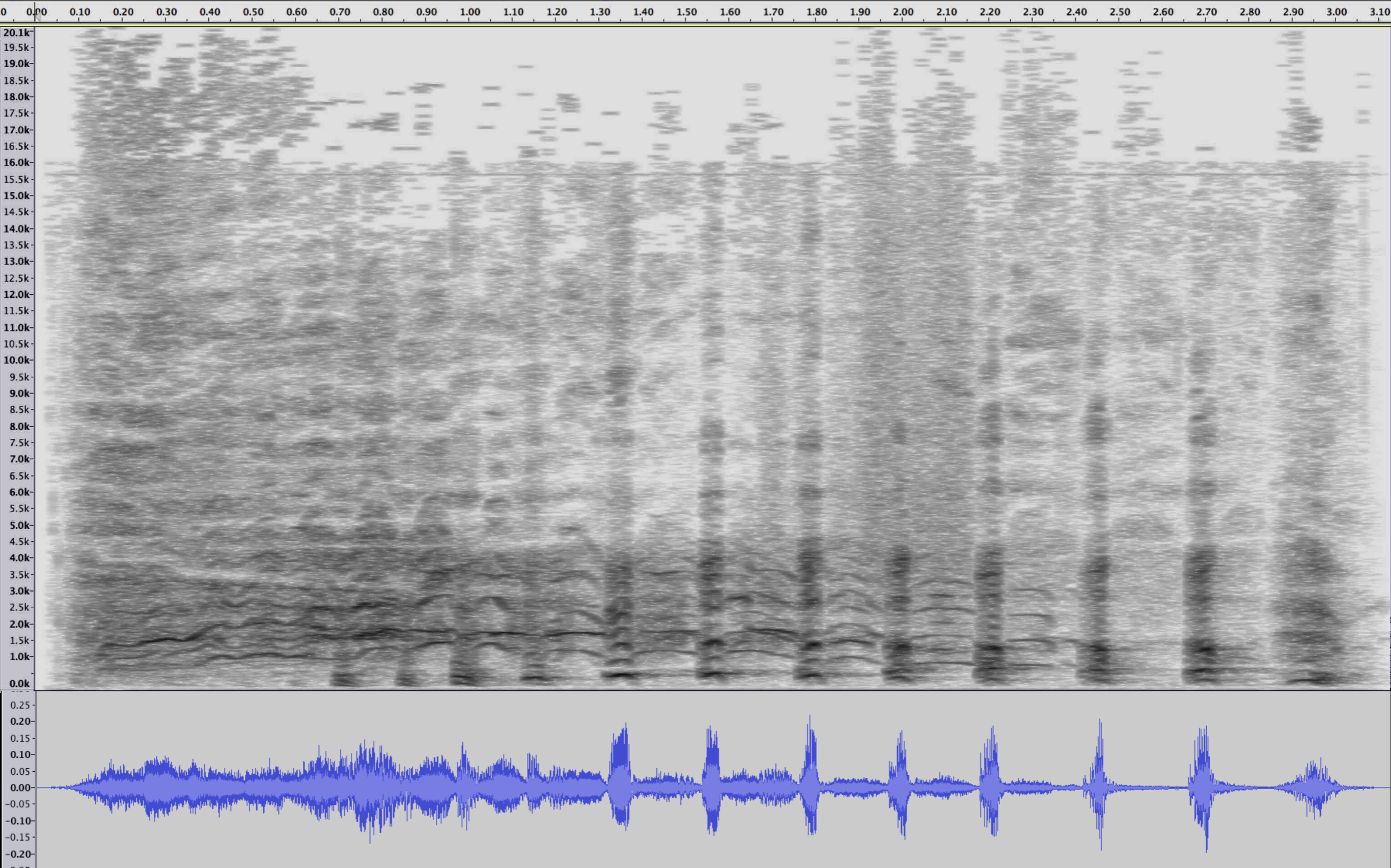
Frequenz



Amplitude

Zeit

Klang Visualisierung



Editing

Audacity

The screenshot displays the Audacity application window on a Mac. The title bar reads "synth session_mix2". The menu bar includes "Audacity", "File", "Edit", "View", "Transport", "Tracks", "Generate", "Effect", "Analyze", "Window", and "Help". The toolbar contains various editing tools such as Play, Stop, Record, Undo, Redo, and various selection and editing tools. The transport controls show a time line from -1:00 to 12:30. The track name is "synth sessi" and it is configured as "Stereo, 48000Hz, 32-bit float". The waveform shows a complex audio signal with a significant increase in amplitude starting around 5:00. The status bar at the bottom indicates "Project Rate (Hz): 48000", "Snap To: Off", "Selection Start: 00 h 00 m 00.000 s", "End: 00 h 00 m 00.000 s", "Audio Position: 00 h 00 m 00.000 s", and "Actual Rate: 48000".

Interface

Tools

Auswahl

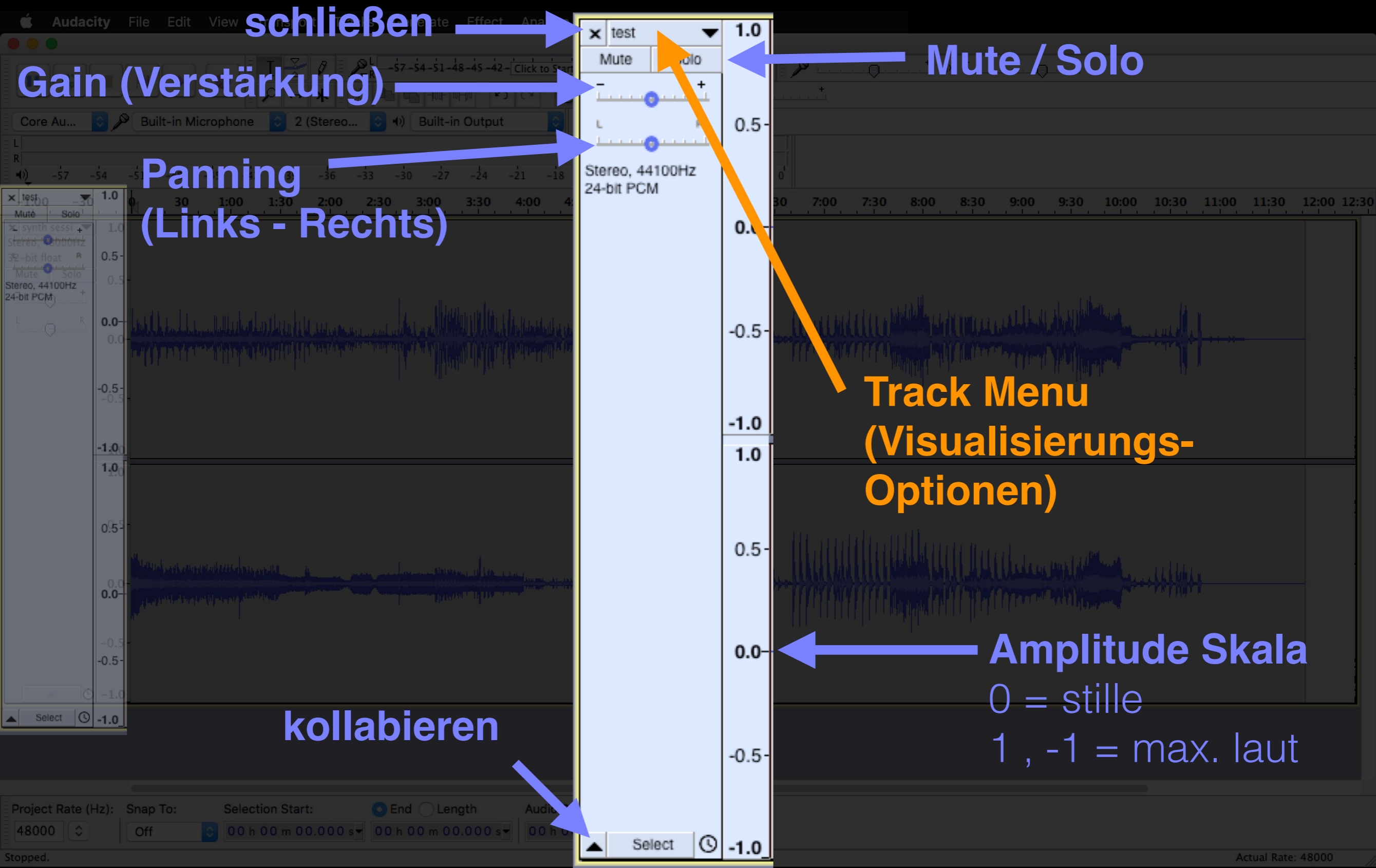
Hüllkurve (Amplitude)



Schieben



Interface Track Control Panel



schließen

Gain (Verstärkung)

Panning
(Links - Rechts)

kollabieren

Mute / Solo

Track Menu
(Visualisierungsoptionen)

Amplitude Skala
0 = stille
1, -1 = max. laut

Interface

Track Menu

- Name...
- Move Track Up
- Move Track Down
- Move Track to Top
- Move Track to Bottom
- ✓ Waveform
- Waveform (dB)
- Spectrogram
- Spectrogram Settings...
- Make Stereo Track
- Swap Stereo Channels
- Split Stereo Track
- Split Stereo to Mono
- Wave Color ▶
- Format ▶
- Rate ▶

Wellenform

(vertikal = Amplitude
(horizontal = Zeit



Project Rate (Hz): 48000
Snap To: Off
Selection Start: 00 h 00 m 00.000 s
Selection End: 00 h 00 m 00.000 s
Audio Position: 00 h 00 m 00.000 s
Actual Rate: 48000

Interface

Track Menu

The image shows the Audacity application window with the Track Menu open. The menu items are:

- Name...
- Move Track Up
- Move Track Down
- Move Track to Top
- Move Track to Bottom
- Waveform
- Waveform (dB)
- ✓ Spectrogram**
- Spectrogram Settings...
- Make Stereo Track
- Swap Stereo Channels
- Split Stereo Track
- Split Stereo to Mono
- Format ▶
- Rate ▶

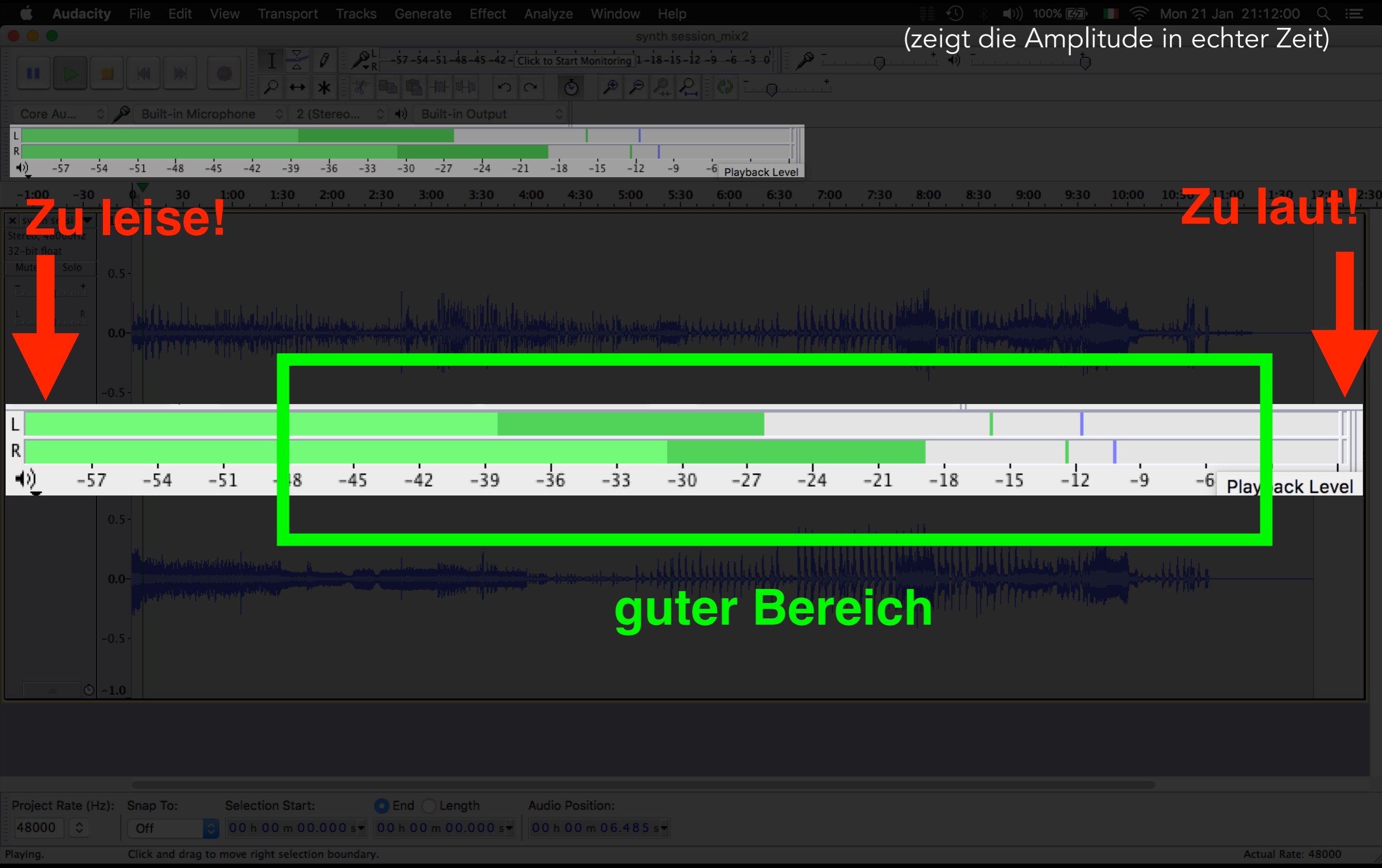
The background shows a spectrogram of an audio track. The spectrogram is a 2D plot where the vertical axis represents frequency in Hz and the horizontal axis represents time. The intensity of the colors (ranging from blue to red) represents the amplitude of the sound at each frequency and time point.

Spektrogram
(vertikal = Frequenz (Hz))
(horizontal = Zeit)
(Helligkeit / Farbe = Amplitude)

At the bottom of the window, the status bar shows: Project Rate (Hz) 44100, Snap-To Off, Audio Position 00 h 00 m 00.000 s, and Length and End of Selection 00 h 00 m 00.000 s.

Interface Playback Monitor

(zeigt die Amplitude in echter Zeit)



Zu leise!

Zu laut!

guter Bereich

Editing

Effect

The screenshot displays the Audacity audio editing software interface. The 'Effect' menu is open, listing various audio processing options. The background shows a multi-track project with two tracks visible: 'synth sessi' and 'n_mix2'. The 'synth sessi' track is selected and shows a blue waveform. The 'n_mix2' track also shows a blue waveform. The interface includes a menu bar at the top, a toolbar with various editing tools, and a transport control area at the bottom. The status bar at the bottom indicates the project is stopped and the actual rate is 48000 Hz.

Effect Menu Options:

- Manage...
- Repeat Last Effect ⌘R
- Amplify...
- Auto Duck...
- Bass and Treble...
- Change Pitch...
- Change Speed...
- Change Tempo...
- Click Removal...
- Compressor...
- Echo...
- Equalization...
- Fade In
- Fade Out
- Invert
- Leveller...
- Noise Reduction...
- Normalize...
- Nyquist Prompt...
- Paulstretch...
- Phaser...
- Repair
- Repeat...
- Reverb...
- Reverse
- Sliding Time Scale/Pitch Shift...
- Truncate Silence...
- Wahwah...
- Adjustable Fade...
- Clip Fix...
- Crossfade Clips
- Crossfade Tracks...
- Delay...
- High Pass Filter...
- Limiter...
- Low Pass Filter...
- Notch Filter...
- Spectral edit multi tool
- Spectral edit parametric EQ...
- Spectral edit shelves...
- Studio Fade Out
- Tremolo...
- Vocal Reduction and Isolation

Project Settings:

- Project Rate (Hz): 48000
- Snap To: Off
- Selection Start: 00 h 00 m 00.000 s
- Selection End: 00 h 00 m 00.000 s
- Project Rate (Hz): 48000

Status: Stopped. Actual Rate: 48000

Editing

Envelope Tool

The screenshot displays the Audacity interface with the Envelope Tool selected. The main window shows a stereo audio track named "synth session_mix2" with a blue waveform and a grey amplitude envelope. The envelope is being edited with a blue line, showing a dip in volume between 2:00 and 5:00. The interface includes a menu bar (Audacity, File, Edit, View, Transport, Tracks, Generate, Effect, Analyze, Window, Help), a toolbar with various editing tools, and a status bar at the bottom. The status bar shows the project rate is 48000 Hz, the selection start is 00 h 01 m 34.492 s, and the audio position is 00 h 00 m 00.000 s. The status bar also indicates "Stopped" and "Click and drag to edit the amplitude envelope".

Project Rate (Hz): 48000
Snap To: Off
Selection Start: 00 h 01 m 34.492 s
End Length
Audio Position: 00 h 00 m 00.000 s
Stopped. Click and drag to edit the amplitude envelope
Actual Rate: 48000

Editing

Fade in

The image shows the Audacity audio editing software interface. The 'Effect' menu is open, and 'Fade In' is highlighted. The background shows a multi-track audio project with waveforms and a timeline.

Audacity File Edit View Transport Tracks Generate **Effect** Analyze Window Help

Core Au... Built-in Microphone 2 (Stereo... Built-in

synth sessi Stereo, 48000Hz 32-bit float

Mute Solo

Project Rate (Hz): 48000 Snap To: Off Selection Start: 00 h 00 m 00.000 s

Stopped. Click and drag to move right selection boundary. Actual Rate: 48000

Effect menu items:

- Manage...
- Repeat Last Effect ⌘R
- Amplify...
- Auto Duck...
- Bass and Treble...
- Change Pitch...
- Change Speed...
- Change Tempo...
- Click Removal...
- Compressor...
- Echo...
- Equalization...
- Fade In**
- Fade Out
- Invert
- Leveller...
- Noise Reduction...
- Normalize...
- Nyquist Prompt...
- Paulstretch...
- Phaser...
- Repair
- Repeat...
- Reverb...
- Reverse
- Sliding Time Scale/Pitch Shift...
- Truncate Silence...
- Wahwah...
- Adjustable Fade...
- Clip Fix...
- Crossfade Clips
- Crossfade Tracks...
- Delay...
- High Pass Filter...
- Limiter...
- Low Pass Filter...
- Notch Filter...
- Spectral edit multi tool
- Spectral edit parametric EQ...
- Spectral edit shelves...
- Studio Fade Out
- Tremolo...
- Vocal Reduction and Isolation

Editing

Fade in

The screenshot displays the Audacity audio editing software interface. At the top, the menu bar includes 'Audacity', 'File', 'Edit', 'View', 'Transport', 'Tracks', 'Generate', 'Effect', 'Analyze', 'Window', and 'Help'. The main window title is 'synth session_mix2'. Below the menu bar is a toolbar with various editing tools like selection, pan, zoom, and effects. A second toolbar shows input/output settings: 'Core Au...', 'Built-in Microphone', '2 (Stereo...', and 'Built-in Output'. A large horizontal timeline at the top shows time markers from -1:00 to 12:30. Below the timeline are two tracks of audio waveforms. The top track is labeled 'synth sessi' and has a volume level of 1.0. The bottom track is unlabeled but also shows a waveform. The bottom status bar contains project settings: 'Project Rate (Hz): 48000', 'Snap To: Off', 'Selection Start: 00 h 00 m 00.000 s', 'End: 00 h 00 m 48.695 s', and 'Audio Position: 00 h 00 m 00.000 s'. It also indicates 'Stopped' and 'Actual Rate: 48000'.

Editing

Fade out

The image shows the Audacity audio editing software interface. The 'Effect' menu is open, and 'Fade Out' is highlighted. The background shows a multi-track audio project with two tracks visible, each containing a blue waveform. The top menu bar includes 'Audacity', 'File', 'Edit', 'View', 'Transport', 'Tracks', 'Generate', 'Effect', 'Analyze', 'Window', and 'Help'. The 'Effect' menu contains the following items: Manage..., Repeat Fade In (⌘R), Amplify..., Auto Duck..., Bass and Treble..., Change Pitch..., Change Speed..., Change Tempo..., Click Removal..., Compressor..., Echo..., Equalization..., Fade In, **Fade Out**, Invert, Leveller..., Noise Reduction..., Normalize..., Nyquist Prompt..., Paulstretch..., Phaser..., Repair, Repeat..., Reverb..., Reverse, Sliding Time Scale/Pitch Shift..., Truncate Silence..., Wahwah..., Adjustable Fade..., Clip Fix..., Crossfade Clips, Crossfade Tracks..., Delay..., High Pass Filter..., Limiter..., Low Pass Filter..., Notch Filter..., Spectral edit multi tool, Spectral edit parametric EQ..., Spectral edit shelves..., Studio Fade Out, Tremolo..., and Vocal Reduction and Isolation. The bottom status bar shows 'Project Rate (Hz): 48000', 'Snap To: Off', 'Selection Start: 00 h 09 m 34.491 s', and 'Actual Rate: 48000'.

Editing

Amplify

The image shows the Audacity audio editing software interface. The main window displays a stereo audio waveform for a track named 'synth session_mix2'. The waveform is blue and spans from approximately -1:00 to 12:30. A dialog box titled 'Amplify' is open in the center, showing the following settings:

- Amplification (dB): 6.70
- New Peak Amplitude (dB): -0.02
- Allow clipping
- Buttons: Manage, Preview, Cancel, OK

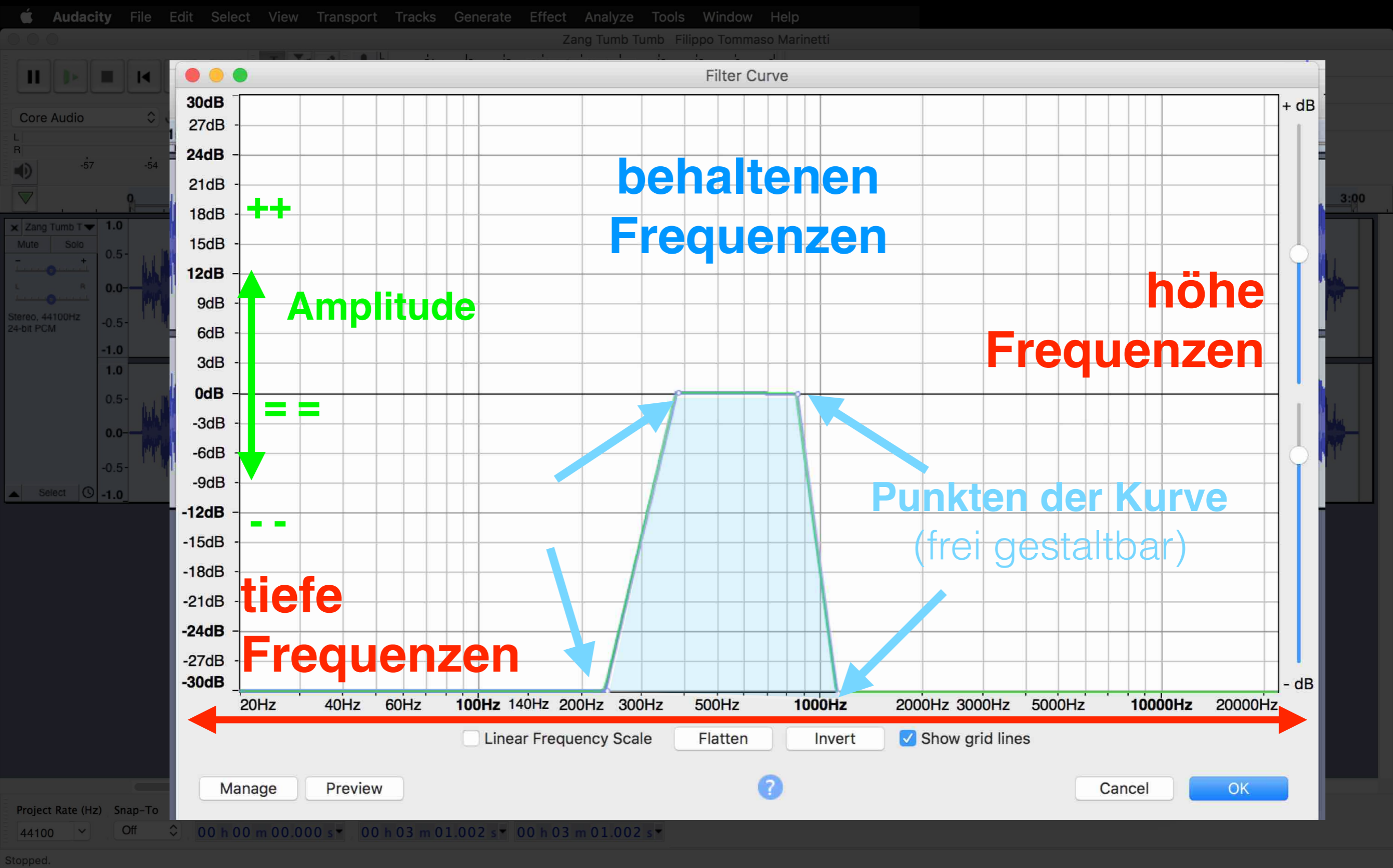
The bottom status bar shows the following information:

- Project Rate (Hz): 48000
- Snap To: Off
- Selection Start: 00 h 00 m 00.000 s
- Selection End: 00 h 11 m 52.419 s
- Audio Position: 00 h 00 m 00.000 s
- Stopped.
- Click and drag to select audio, Command-Click to scrub, Command-Double-Click to scroll-scrub, Command-drag to seek
- Actual Rate: 48000

Editing Filterkurve (Equalizer)

The screenshot displays the Audacity audio editing software interface. At the top, the menu bar includes options like File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, and Help. The main window shows a project titled "Zang Tumb Tumb" by Filippo Tommaso Marinetti. The transport controls and a volume slider are visible. The audio track is labeled "1 (Mono) Recording..." and shows a blue waveform. The waveform is displayed in two channels, L and R, with a vertical scale from -1.0 to 1.0. The horizontal axis represents time, with markers every 15 seconds from 0 to 3:00. The bottom status bar shows the project rate (44100 Hz), snap-to (Off), audio position (00 h 00 m 00.000 s), and length and end of selection (00 h 03 m 01.002 s). The status is "Stopped."

Editing Filterkurve (Equalizer)



Editing Filterkurve (Equalizer)

The screenshot displays the Audacity audio editing interface. At the top, the menu bar includes File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, and Help. The main window title is "Zang Tumb Tumb" by Filippo Tommaso Marinetti. The interface features a toolbar with various editing tools, a transport control section, and a track control area. The track control area shows "Core Audio" as the input device and "1 (Mono) Recording..." as the selected track. The main workspace contains a large waveform view of the audio file, with a time axis ranging from 0 to 3:00. The waveform is displayed in blue on a white background. The track control area on the left includes a "Mute" button, a "Solo" button, and a volume slider. The status bar at the bottom shows the project rate (44100 Hz), snap-to settings (Off), audio position (00 h 00 m 00.000 s), and length and end of selection (00 h 03 m 01.002 s). The status bar also indicates "Stopped" and provides a tip: "Click and drag to move left selection boundary."

Bearbeitung

Nachhall

The screenshot displays the Audacity audio editing software interface. The window title is "Zang Tumb Tumb Filippo Tommaso Marinetti". The interface includes a menu bar (File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, Help), a toolbar with various editing tools, and a multi-track view. The main track displays a blue waveform of a stereo audio file. The transport controls at the bottom show the project is stopped at 00 h 03 m 01.002 s. The status bar at the very bottom indicates "Stopped."

Project Rate (Hz): 44100
Snap-To: Off
Audio Position: 00 h 00 m 00.000 s
Length and End of Selection: 00 h 03 m 01.002 s

Bearbeitung

Nachhall

trocken

hallig

The image shows the Audacity software interface with a 'Reverb' dialog box open. The dialog box contains several settings for reverb, each with a numerical input field and a corresponding slider. Two rows are highlighted with red boxes: 'Room Size (%)' and 'Reverberance (%)'. Red arrows point from the text 'trocken' to the 'Room Size (%)' slider and from 'hallig' to the 'Reverberance (%)' slider. The 'Wet Only' checkbox is unchecked. At the bottom of the dialog are buttons for 'Manage', 'Preview', a help icon, 'Cancel', and 'OK'.

| Parameter | Value |
|------------------|-------|
| Room Size (%) | 75 |
| Pre-delay (ms) | 10 |
| Reverberance (%) | 50 |
| Damping (%) | 50 |
| Tone Low (%) | 100 |
| Tone High (%) | 100 |
| Wet Gain (dB) | 3 |
| Dry Gain (dB) | -20 |
| Stereo Width (%) | 100 |

Wet Only

Buttons: Manage, Preview, ?, Cancel, OK

Bearbeitung

Nachhall

The screenshot displays the Audacity audio editing software interface. The window title is "Zang Tumb Tumb - Filippo Tommaso Marinetti". The interface includes a menu bar (File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, Help), a toolbar with playback and editing controls, and a multi-track view. The main track, "Zang Tumb T", contains a stereo audio waveform. The status bar at the bottom shows "Project Rate (Hz): 44100", "Snap-To: Off", "Audio Position: 00 h 00 m 01.709 s", and "Length and End of Selection: 00 h 03 m 01.287 s to 00 h 03 m 02.996 s". The status is "Stopped".

Bearbeitung Verzerrung

The screenshot displays the Audacity audio editing software interface. At the top, the menu bar includes options like File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, and Help. Below the menu bar is a toolbar with various editing tools. The transport control bar shows a play button and a progress slider. The track control bar includes a volume meter and a 'Click to Start Monitoring' button. The main workspace shows two audio tracks for the file 'Zang Tumb Tumb' by Filippo Tommaso Marinetti. The top track is labeled 'Zang Tumb T' and shows a blue waveform. The bottom track is a duplicate of the top track. The status bar at the bottom shows 'Project Rate (Hz) 44100', 'Snap-To Off', 'Audio Position 00 h 00 m 00.000 s', and 'Length and End of Selection 00 h 03 m 01.002 s'. The status bar also indicates 'Stopped.'

Bearbeitung Verzerrung

mehr Verzerrung

The image shows the Audacity software interface with the 'Distortion' effect dialog box open. The dialog box is titled 'Distortion' and contains the following settings:

- Distortion type: Hard Clipping
- DC blocking filter:
- Threshold controls:
 - Clipping level (-100 to 0 dB): -27.96
 - Noise Floor (Not Used):
- Parameter controls:
 - Drive (0 to 100): 85.00
 - Make-up Gain (0 to 100): 38.00
 - Number of repeats (Not Used):

At the bottom of the dialog box, there are buttons for 'Manage', 'Stop Playback', 'Skip Backward', 'Skip Forward', 'Enable' (checked), a help icon, 'Close', and 'Apply'.

Two red arrows point from the text 'mehr Verzerrung' to the 'Clipping level' and 'Drive' sliders, which are also highlighted with red boxes. The background shows the Audacity interface with a track titled 'Zang Tumb Tumb' by Filippo Tommaso Marinetti.

Bearbeitung Verzerrung

The screenshot displays the Audacity audio editor interface. At the top, the menu bar includes 'Audacity', 'File', 'Edit', 'Select', 'View', 'Transport', 'Tracks', 'Generate', 'Effect', 'Analyze', 'Tools', 'Window', and 'Help'. The main window title is 'Zang Tumb Tumb Filippo Tommaso Marinetti'. Below the menu bar is a toolbar with various editing tools like play, stop, undo, redo, and zoom. A volume meter and a 'Click to Start Monitoring' button are also present. The transport controls show the project is stopped at 00:03:01.002. The tracks section shows a stereo track named 'Zang Tumb T' with a volume of 1.0. The waveform shows a dense, noisy audio signal. The status bar at the bottom indicates 'Project Rate (Hz): 44100', 'Snap-To: Off', 'Audio Position: 00 h 00 m 00.000 s', and 'Length and End of Selection: 00 h 03 m 01.002 s'. A 'Stopped.' indicator and a tip 'Click and drag to move left selection boundary.' are visible at the bottom left.

Bearbeitung Change speed

länger + tiefer

kurzer + höher

Change Speed

Change Speed, affecting both Tempo and Pitch

Speed Multiplier: 1.733 Percent Change: 73.333

Standard Vinyl rpm: from 45 to 78

Selection Length

Current Length: 00 h 03 m 01.002 s

New Length: 00 h 01 m 44.424 s

Manage Preview ? Cancel OK

Project Rate (Hz) Snap-To Audio Position Length and End of Selection

44100 Off 00 h 00 m 00.000 s 00 h 03 m 01.002 s 00 h 03 m 01.002 s

Bearbeitung Change speed

The screenshot displays the Audacity audio editing software interface. At the top, the menu bar includes Apple logo, Audacity, File, Edit, Select, View, Transport, Tracks, Generate, Effect, Analyze, Tools, Window, and Help. The main window title is "Zang Tumb Tumb Filippo Tommaso Marinetti". Below the menu bar is a toolbar with various icons for playback, editing, and analysis. A volume meter and a "Click to Start Monitoring" button are also present. The interface shows two tracks: "Core Audio" (Built-in Microphone) and "1 (Mono) Recording..." (Built-in Output). A timeline at the bottom indicates time markers from 0 to 3:00. The main workspace shows two tracks of audio data, with a selection box highlighting a segment from 0 to 30 seconds. The selected segment is highlighted in blue. The bottom status bar shows "Project Rate (Hz) 44100", "Snap-To Off", "Audio Position 00 h 00 m 00.000 s", and "Length and End of Selection 00 h 00 m 36.198 s". The status bar also indicates "Stopped."

Bearbeitung Change Pitch

tiefer

höher

Change Pitch

Change Pitch without Changing Tempo

Estimated Start Pitch: C#/D \flat 8 (4410.000 Hz)

Pitch

from C#/D \flat 8 to C 7

Semitones (half-steps): -13.07

Frequency

from 4410.00 to 2072.70 Hz

Percent Change: -53.000

Use high quality stretching (slow)

Manage Preview ? Cancel OK

gleiche Dauer (Tempo) !!

Bearbeitung Change Tempo

langsamer

schneller

Change Tempo

Change Tempo without Changing Pitch

Percent Change: 65.886

Beats per minute

from to

Length (seconds)

from 181.00 to 109.11

Use high quality stretching (slow)

Manage Preview ? Cancel OK

gleiche Tonhöhe !!

Project Rate (Hz) Snap-To Audio Position Length and End of Selection
44100 Off 00 h 00 m 00.000 s 00 h 03 m 01.002 s 00 h 03 m 01.002 s

Stopped.

Sample Library

Freesound

<http://freesound.org/>

BBC Sound Effects

<http://bbcsfx.acropolis.org.uk>

Text, Bild und Klang

Interpretationsebene: Objekten

Analogie Antithese

Wiedergabe
?
Reproduktion

Ursprung

Geste Material
Kontext

Inhalt

Spektrum Morphologie
Raum

Assoziation

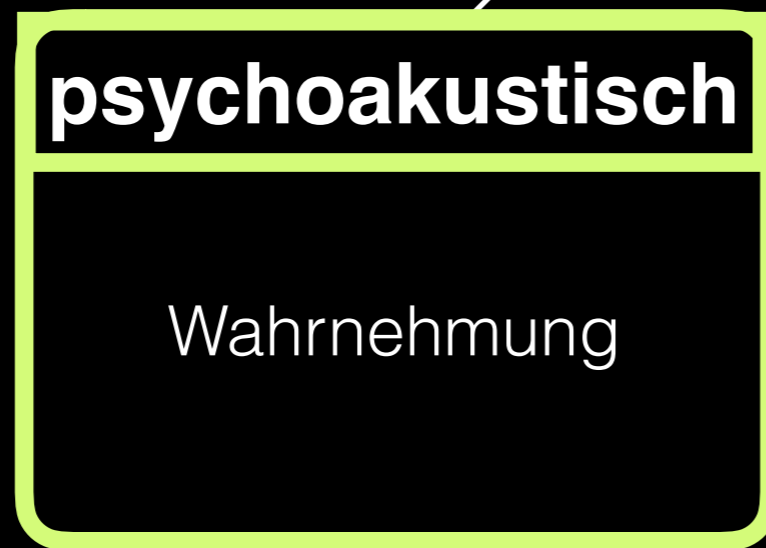
Semantik Symbolik

Form

Makrostruktur

Analyse

Klassifizierung



FORM

**URSPRUNG /
URSACHE**

INTERPRETATION

INHALT

ASSOZIATION

Analyse

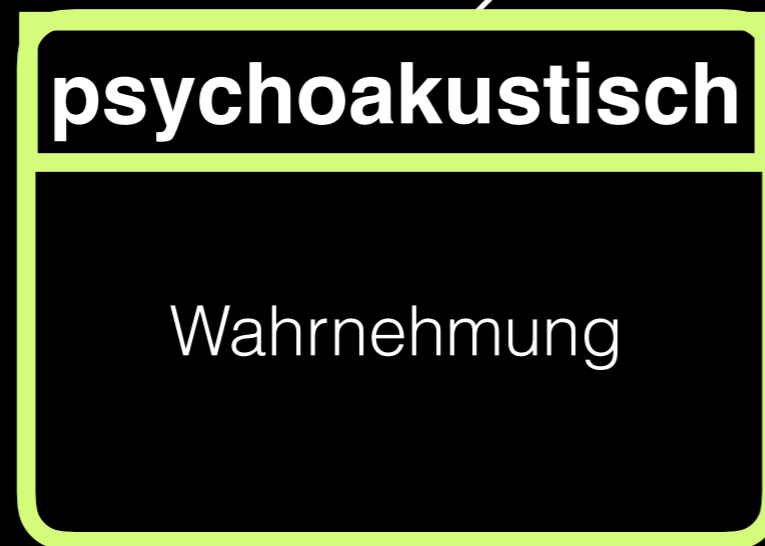
Klassifizierung



Kettle Boiling Sound Effect2.aiff

Analyse

Klassifizierung



- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

Kettle Boiling Sound Effect2.aiff

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

semantisch

Bedeutung

ästhetisch

Bewertung

Kettle Boiling Sound Effect2.aiff

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

ästhetisch

Bewertung

Kettle Boiling Sound Effect2.aiff

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

Kettle Boiling Sound Effect2.aiff

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

Kettle Boiling Sound Effect2.aiff

Snake hiss sound effect.aiff

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

- eine Schlange bereit zum Angriff
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

- hoch
- zischend

semantisch

Bedeutung

- das Wasser kocht
- Erwartung

- eine Schlange bereit zum Angriff
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

- erschreckend

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend

- hoch
- zischend



semantisch

Bedeutung

- das Wasser kocht
- Erwartung

- eine Schlange bereit zum Angriff
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

- erschreckend

Analyse

Klassifizierung

akustisch

physikalischer
Phänomen

- gefärbten Rausch
- enge Frequenz-Band (>8 kHz)
- stabiler Körper
- 60 dB

psychoakustisch

Wahrnehmung

- hoch
- zischend



semantisch

Bedeutung

- **das Wasser kocht**
- Erwartung

ästhetisch

Bewertung

- angenehm ?
- anstrengend ?

Kettle Boiling Sound Effect2.aiff

- gefärbten Rausch
- enge Frequenz-Band (>7,5 kHz)
- stabiler Körper (+ Diskontinuitäten)
- 55 dB

- hoch
- zischend

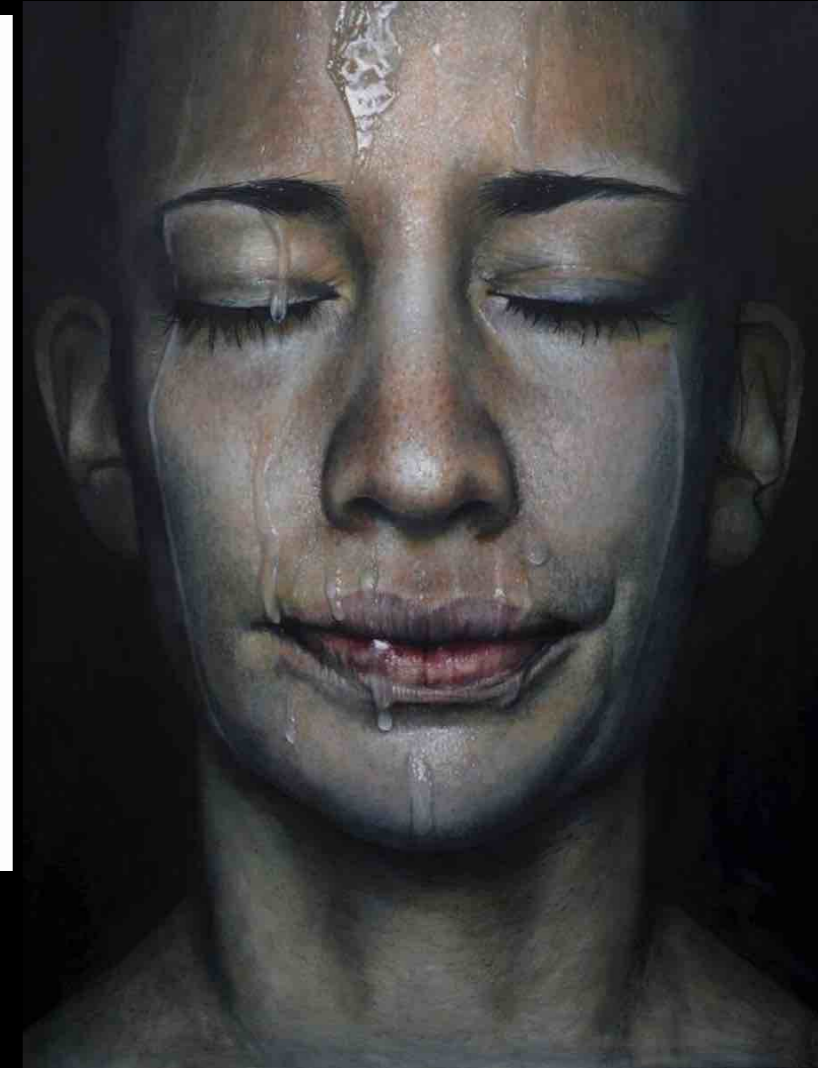


- **eine Schlange bereit zum Angriff**
- Erwartung

- erschreckend
- hypnotisch

Snake hiss sound effect.aiff

die Wiedergabe



der Mensch, in unterschiedlichen "Wiedergaben"

die Wiedergabe

audio-visiogene Effekt,

bei dem der Klang vom Zuschauer als wahr, effektiv
und passend akzeptiert wird

indem

er die zu der Ursache/Situation

dazu gehörende Gefühle wiedergibt

(übersetzt, ausdrückt)

*nicht indem er der Klang nachbildet, der der Situation oder Ursache in
der Wirklichkeit ähnlich ist.*

Wirklichkeit - Wiedergabe

für den Zuschauer
sind zwei unterschiedlichen Aspekten !

wie klingt der Klang
wahrhaft ?



Reproduktion

was hört sich
wie Wahrheit an ?

bezieht sich auf den Medien spezifischen

Code

ist auf den künstlerischen Vereinbarungen basiert,
die von **der Wiedergabe** bestimmt werden

Vorsicht !

die **ILLUSION** der natürlichen Erzählweise von Klängen

der klang kann **NICHT** über sich selbst / über seiner Ursache **OBJEKTIV** erzählen
und an die Ursache gebundene Eindrücke erwecken.

Interpretationsebene: Objekten

gleich (=)

Ursprung (Material)

unterschiedlich (≠)

Geste / Morphologie / Kontext



*Beide Klänge benötigen eine Erklärung / einen visuellen Element,
um auf ihre Quelle zurückzuweisen.*

die **Illusion** einer natürlichen Erzählweise von Klängen

Interpretationsebene: Objekten

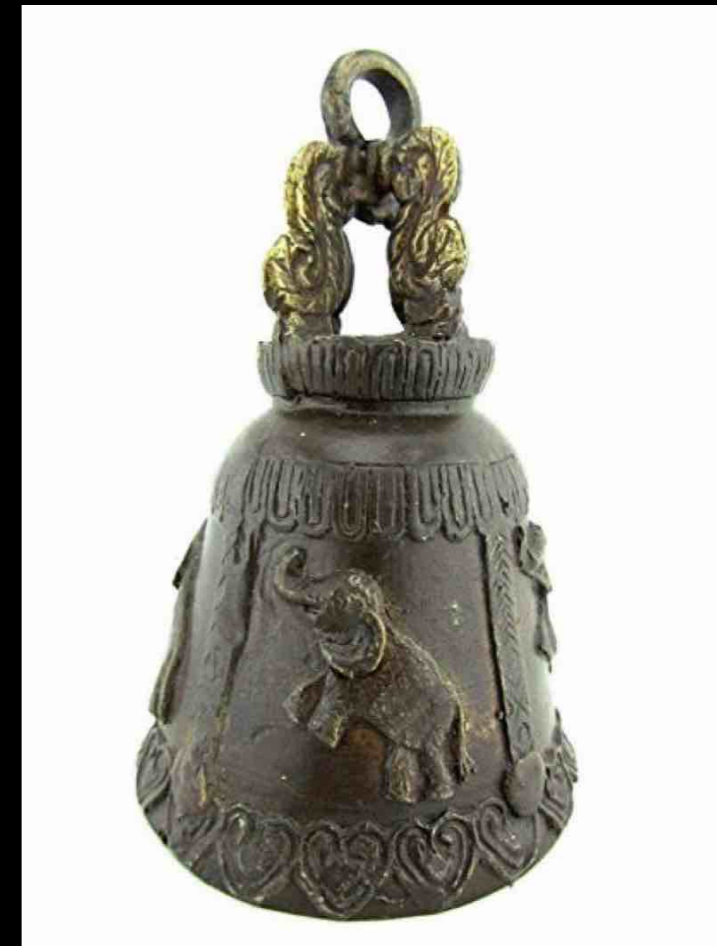
Ursprung (Material & Geste, **Kontext**)

Tempel

Inhalt (Spektrum & Morphologie)

Assoziation (**Semantik** , Symbolik)

Religion



Interpretationsebene: Objekten

Ursprung (Geste) + **Kontext**

Küche ?

Material / Morphologie

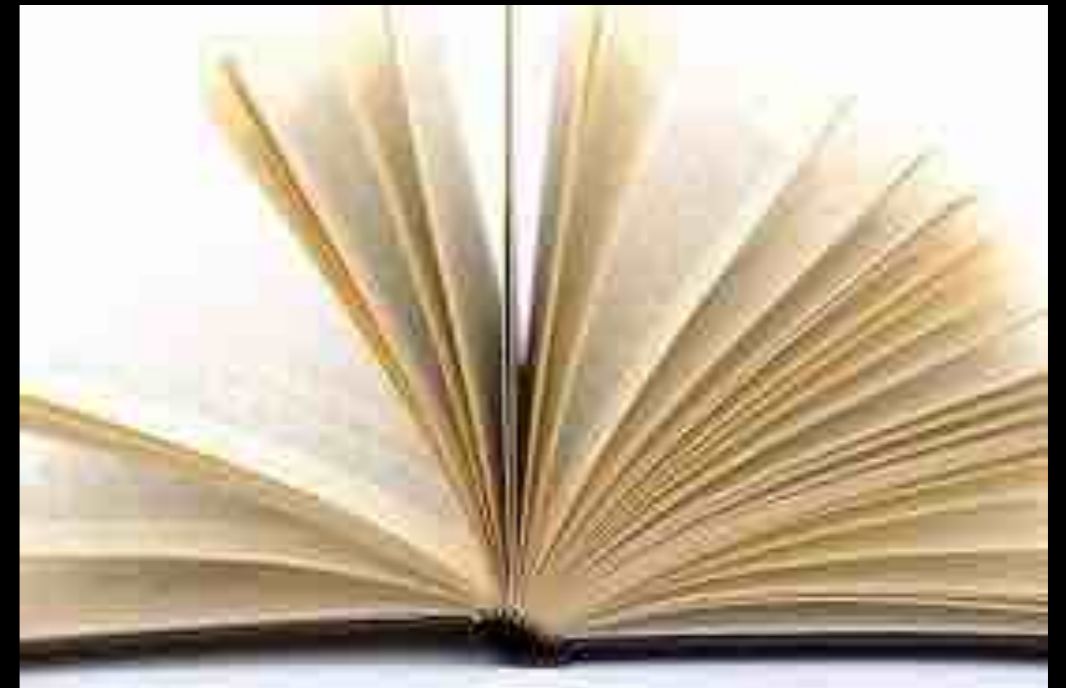
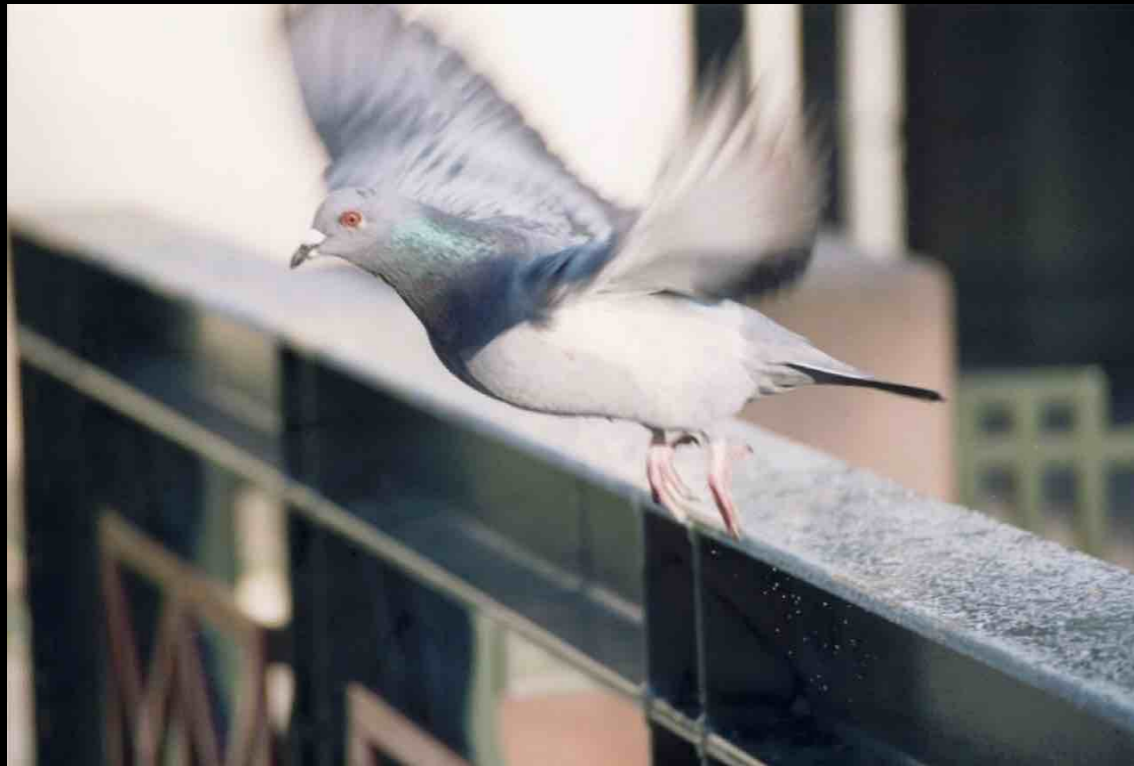


Interpretationsebene: Objekten

Geste

ähnliche (\approx)

Spekro- Morphologie



Wiedergabe

?

Reproduktion

4_paper pages 204046__duckduckpony__paper-parchment-rustling.wav

Interpretationsebene: Objekten

ähnliche (\approx)

Spekro- Morphologie



Wiedergabe

?

Reproduktion

5_vacuum cleaner 430632__inspectorj__vacuum-cleaner-on-idle-off-close-a.wav

Interpretationsebene: Objekten

Semantik

ähnliche (≈)

Spekro- Morphologie



Wiedergabe

?



Reproduktion

Elementen der Klanglandschaft



Wie klingen...



Nebel ?

Wind ?

Steine ?

Moos ?

Tiere ?

Strategien

Nebel ?

Wind ?

REPRODUKTION

REDUKTION

WIEDERGABE

Steine ?

Moos ?

Tiere ?

Klangliche Interpretations eines Textes

Lucky. Given the existence as uttered forth in the public works of Puncher and Wattmann of a personal God quaquaquaqu with white beard quaquaquaqu outside time without extension who from the heights of divine apathia divine athambia divine aphasia loves us dearly with some exceptions for reasons unknown but time will tell and suffers like the divine Miranda with those who for reasons unknown but time will tell are plunged in torment plunged in fire whose fire flames if that continues and who can doubt it will fire the firmament that is to say blast hell to heaven so blue still and calm so calm with a calm which even though intermittent is better than nothing but not so fast and considering what is more that as a result of the labors left unfinished crowned by the Acacacademy of Anthropopometry of Essy-in-Possy of Testew and Cunard it is established beyond all doubt all other doubt than that which clings to the labors of men that as a result of the labors unfinished of Testew and Cunard it is established as hereinafter but not so fast for reasons unknown that as a result of the public works of Puncher and Wattmann it is established beyond all doubt that in view of the labors of Fartov and Belcher left unfinished for reasons unknown of Testew and Cunard left unfinished it is established what many deny that man in Possy of Testew and Cunard that man in Essy that man in short that man in brief in spite of the strides of alimentation and defecation wastes and pines wastes and pines and concurrently simultaneously what is more for reasons unknown in spite of the strides of physical culture the practice of sports such as tennis football running cycling swimming flying floating riding gliding conating camogie skating tennis of all kinds dying flying sports of all sorts autumn summer winter winter tennis of all kinds hockey of all sorts penicillin and succedanea in a word I resume flying gliding golf over nine and eighteen holes tennis of all sorts in a word for reasons unknown in Feckham Peckham Fulham Clapham namely concurrently simultaneously what is more for reasons unknown but time will tell fades away I resume Fulham Clapham in a word the dead loss per head since the death of Bishop Berkeley being to the tune of one inch four ounce per head approximately by and large more or less to the nearest decimal good measure round figures stark naked in the stockinged feet in Connemara in a word for reasons unknown no matter what matter the facts are there and considering what is more much more grave that in the light of the labors lost of Steinweg and Peterman it appears what is more much more grave that in the light the light the light of the labors lost of Steinweg and Peterman that in the plains

in the mountains by the seas by the rivers running water running fire the air is the same and then the earth namely the air and then the earth in the great cold the great dark the air and the earth abode of stones in the great cold alas alas in the year of their Lord six hundred and something the air the earth the sea the earth abode of stones in the great deeps the great cold on sea on land and in the air I resume for reasons unknown in spite of the tennis the facts are there but time will tell I resume alas alas on on in short in fine on on abode of stones who can doubt it I resume but not so fast I resume the skull fading fading fading and concurrently simultaneously what is more for reasons unknown in spite of the tennis on on the beard the flames the tears the stones so blue so calm alas alas on on the skull the skull the skull the skull in Connemara in spite of the tennis the labors abandoned left unfinished graver still abode of stones in a word I resume alas alas abandoned unfinished the skull the skull in Connemara in spite of the tennis the skull alas the stones Cunard (*mêlée, final vociferations*) tennis... the stones... so calm... Cunard... unfinished...

Pozzo. His hat!

*Vladimir seizes Lucky's hat. Silence of Lucky. He falls. Silence.
Panting of the victors.*

Estragon. Avenged!

Vladimir examines the hat, peers inside it.

Pozzo. Give me that! (*He snatches the hat from Vladimir, throws it on the ground, tramples on it.*) There's an end to his thinking!

*Vladimir and Estragon hoist Lucky to his feet, support him an instant,
then let him go. He falls. They raise Lucky, hold him up.*

Pozzo. Don't let him go! (*Vladimir and Estragon totter.*) Don't move! (*Pozzo fetches bag and basket and brings them towards Lucky.*) Hold him tight! (*He puts the bag in Lucky's hand. Lucky drops it immediately.*) Don't let him go! (*He puts the bag back in Lucky's hand. Gradually, at the feel of the bag, Lucky recovers his senses and his fingers finally close round the handle.*) Hold him tight! (*As before with basket.*) Now! You can let him go. (*Vladimir and Estragon move away from Lucky who totters, reels, sags, but succeeds in remaining on his feet, bag and basket in his hands. Pozzo steps back, cracks his whip.*) Forward! (*Lucky totters forward.*) Back! (*Lucky totters back.*) Turn! (*Lucky turns.*) Done it! He can walk. (*Turning to Vladimir and Estragon.*) Thank you, gentlemen, and let me...

De-Konstruktion des Textes

49-53

know center and control in French

God

about nature of Gods

WATTMANN

WACT

1 Lucky. Given the existence as uttered forth in the public works of Puncher and Wattmann of a personal God quaquaquauqua with white beard quaquaquauqua outside time without extension who from the heights of divine apathia divine athambia divine aphasia loves us dearly with some exceptions for reasons unknown but time will tell and suffers like the divine Miranda with those who for reasons unknown but time will tell are plunged in torment plunged in fire whose fire flames if that continues and who can doubt it will fire the firmament that is to say blast hell to heaven so blue still and calm so calm with a calm which even though intermittent is better than nothing but not so fast and considering what is more that as a result of the labors left unfinished crowned by the Aeacacacademy of Anthropopometry of Essy-in-Possy of Testew and Cunard it is established beyond all doubt all other doubt than that which clings to the labors of men that as a result of the labors unfinished of Testew and Cunard it is established as hereinafter but not so fast for reasons unknown that as a result of the public works of Fartov and Belcher left unfinished for reasons unknown of Testew and Cunard left unfinished it is established what many deny that man in Possy of Testew and Cunard that man in Essy that man in short that man in brief in spite of the strides of alimentation and defecation wastes and pines wastes and pines and concurrently simultaneously what is more for reasons unknown in spite of the strides of physical culture the practice of sports such as tennis football running cycling swimming flying floating riding gliding conating camogie skating tennis of all kinds dying flying sports of all sorts autumn summer winter winter tennis of all kinds hockey of all sorts (penicillin and succedanea) in a word I resume flying gliding golf over nine and eighteen holes tennis of all sorts in a word for reasons unknown in Feckham Peckham Fulham Clapham namely concurrently simultaneously what is more for reasons unknown but time will tell fades away I resume Fulham Clapham in a word the dead loss per head since the death of Bishop Berkeley being to the tune of one inch four ounce per head approximately by and large more or less to the nearest decimal good measure round figures stark naked in the stockinged feet in Connemara in a word for reasons unknown no matter what matter the facts are there and considering what is more much more grave that in the light of the labors lost of Steinweg and Peterman it appears what is more much more grave that in the light the light the light of the labors lost of Steinweg and Peterman that in the plains

excellence

pozzo

loop

judgment

UN

HUMANITY in DECLINE

UNIVERSALISM

THINGS ARE OUR PERCEPTION OF THE IDEAS OF IT

IDEAS IMPOSED FROM GOD ON US

PHILOSOPHICAL

FAKE WISDOM

STONE

PETER

humanization of scholars

in the mountains by the seas by the rivers running water running fire the air is the same and then the earth namely the air and then the earth in the great cold the great dark the air and the earth abode of stones in the great cold alas alas in the year of their Lord six hundred and something the air the earth the sea the earth abode of stones in the great deeps the great cold on sea on land and in the air I resume for reasons unknown in spite of the tennis the facts are there but time will tell I resume alas alas on on in short in fine on on abode of stones who can doubt it I resume but not so fast I resume the skull fading fading fading and concurrently simultaneously what is more for reasons unknown in spite of the tennis on on the beard the flames the tears the stones so blue so calm alas alas on on the skull the skull the skull the skull in Connemara in spite of the tennis the labors abandoned left unfinished graver still abode of stones in a word I resume alas alas abandoned unfinished the skull the skull in Connemara in spite of the tennis the skull alas the stones Cunard (mêlée, final vociferations) tennis... the stones... so calm... Cunard... unfinished...

speed

CLIMAX

slow

SPEED

CHABE

Pozzo. His hat!

Vladimir seizes Lucky's hat. Silence of Lucky. He falls. Silence. Panting of the victors.

Estragon. Avenged!

Vladimir examines the hat, peers inside it.

Pozzo. Give me that! (He snatches the hat from Vladimir, throws it on the ground, tramples on it.) There's an end to his thinking!

Vladimir and Estragon hoist Lucky to his feet, support him an instant, then let him go. He falls. They raise Lucky, hold him up.

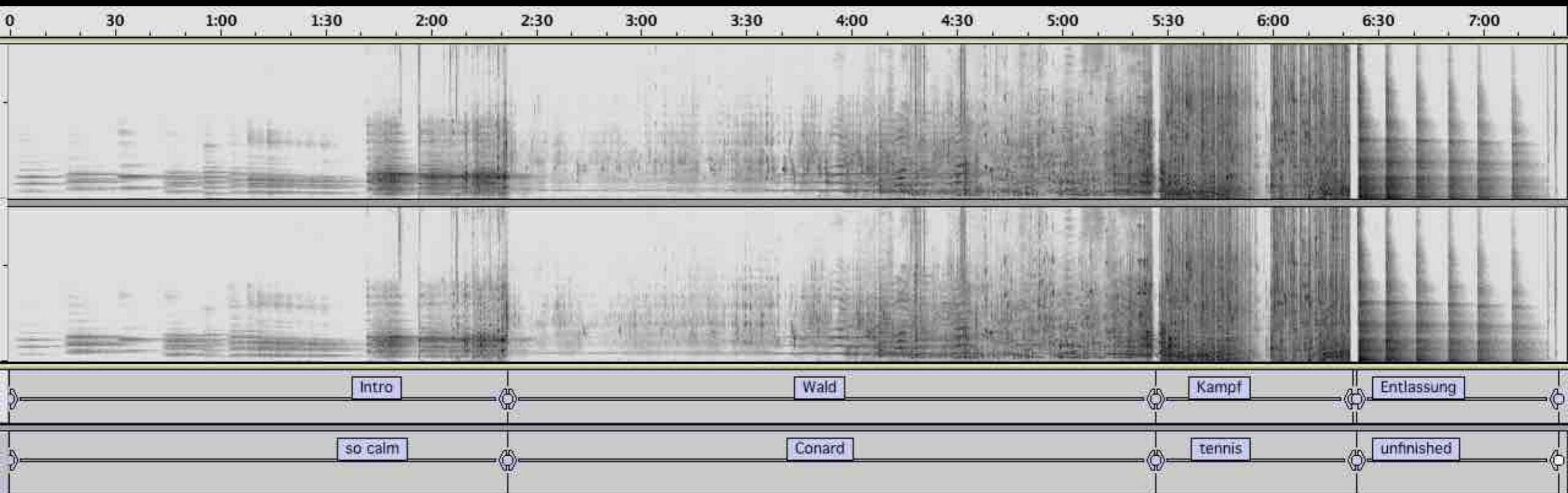
Pozzo. Don't let him go! (Vladimir and Estragon totter.) Don't move! (Pozzo fetches bag and basket and brings them towards Lucky.) Hold him tight! (He puts the bag in Lucky's hand. Lucky drops it immediately.) Don't let him go! (He puts the bag back in Lucky's hand. Gradually, at the feel of the bag, Lucky recovers his senses and his fingers finally close round the handle.) Hold him tight! (As before with basket.) Now! You can let him go. (Vladimir and Estragon move away from Lucky who totters, reels, sags, but succeeds in remaining on his feet, bag and basket in his hands. Pozzo steps back, cracks his whip.) Forward! (Lucky totters forward.) Back! (Lucky totters back.) Turn! (Lucky turns.) Done it! He can walk. (Turning to Vladimir and Estragon.) Thank you, gentlemen, and let me...

RE-Konstruktion des Textes

„Given the **existence** [...] of a personal **God** [...] with white **beard** [...] outside **time** without **extension** [...] who loves us dearly with some exceptions [...] and suffers [...] with those [...] who are plunged in **torment** in **fire** those fire [...] will fire the firmament that is to say blast hell to **heaven** [...] and considering that it is **established** beyond all **doubt** [...] that man [...] wastes and **pires** [...] in spite of [...] the practice of **sports** [...] concurrently simultaneously [...] fades away [...] since the death of Bishop Berkeley [...] **stark** naked in the stockinged feet [...] and considering [...] that [...] it **appears** [...] that in the plains in the mountains by the seas [...] the air is the same and then the earth namely the **air** [...] in the great cold in the great dark [...] the earth abode of **stones** [...] the **skull** fading [...] graver still abode of stones [...] alas **abandoned unfinished** [...]“

RE-Konstruktion des Textes

2015, Riccardo Castagnola, tennis stones calm Sólveig unfinished



Elementen der Klanglandschaft

R.M.Schafer

Elementen der Klanglandschaft

R.M.Schafer



Hintergrund

Vordergrund

Elementen der Klanglandschaft

R.M.Schafer

keynote

kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger



Hintergrund

Vordergrund

Elementen der Klanglandschaft

R.M.Schafer

keynote

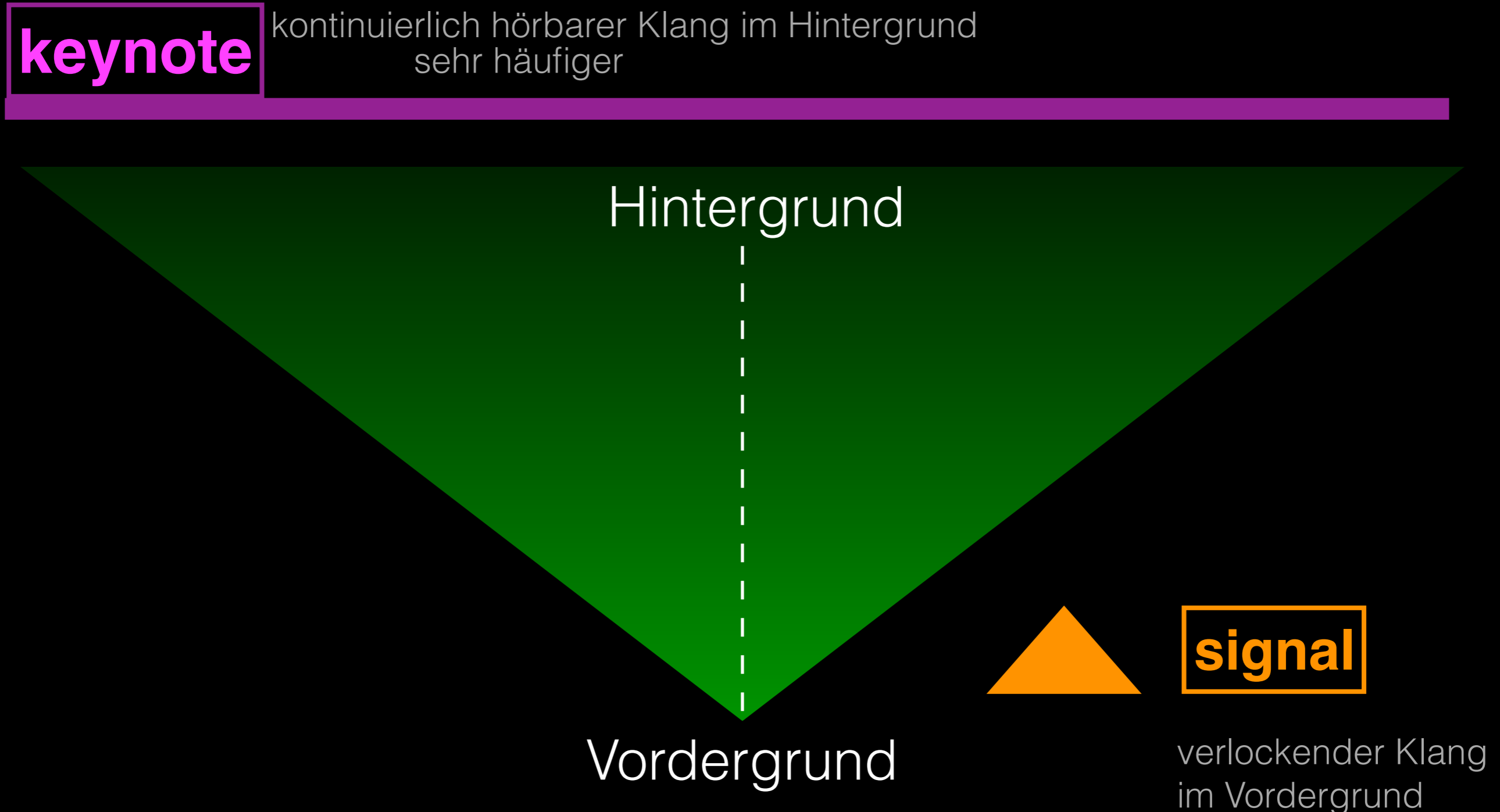
kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger

Hintergrund

Vordergrund

signal

verlockender Klang
im Vordergrund



Elementen der Klanglandschaft

R.M.Schafer

keynote

kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger

Hintergrund

soundmark

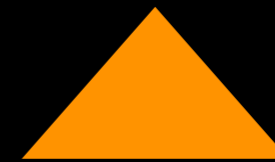
einzelartiger
von der Gemeinschaft
speziell betrachteter
Klang



Vordergrund

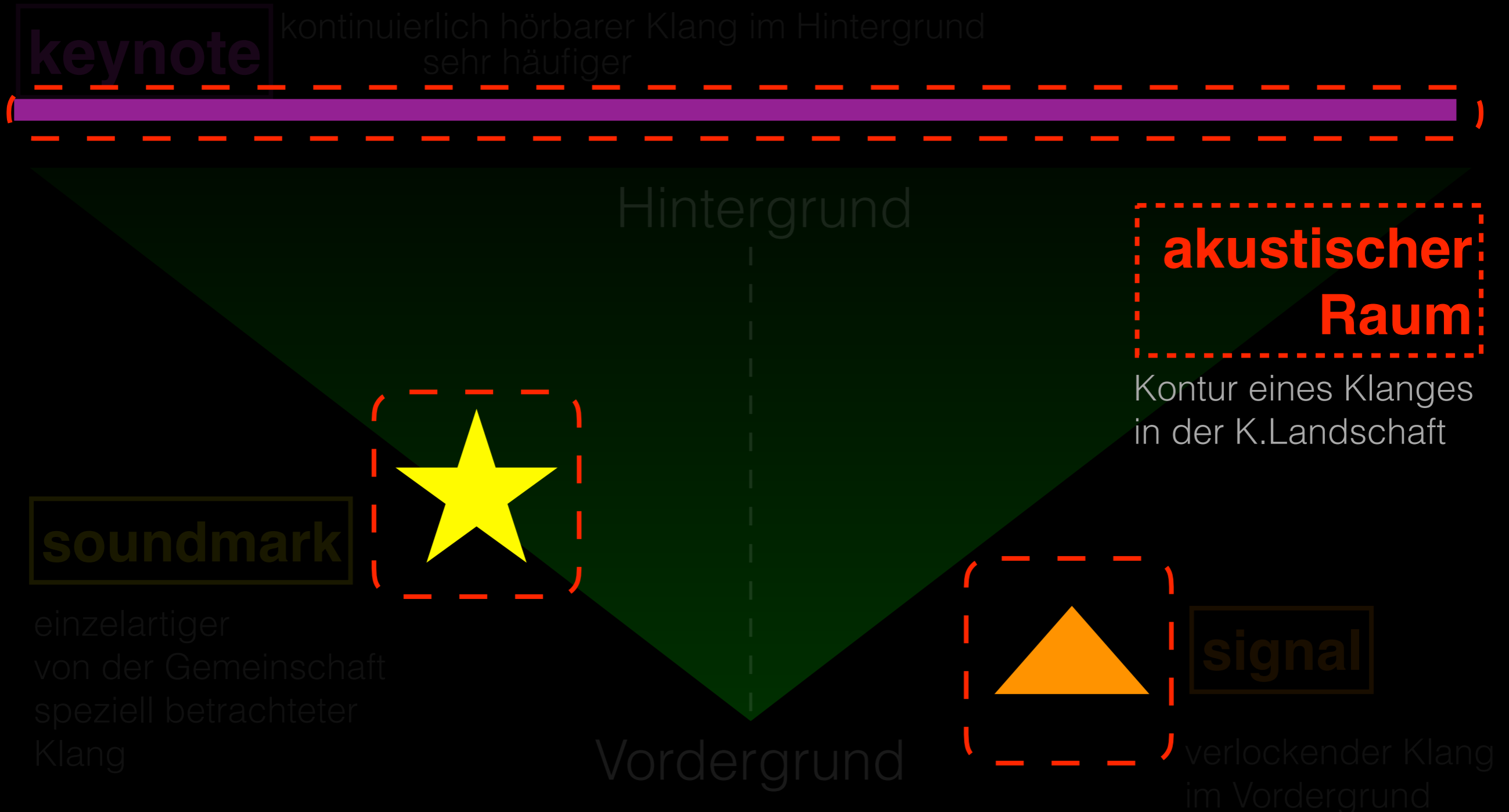
signal

verlockender Klang
im Vordergrund



Elementen der Klanglandschaft

R.M.Schafer



Elementen der Klanglandschaft

R.M.Schafer

keynote

kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger

Hintergrund

**akustischer
Raum**

Kontur eines Klanges
in der K.Landschaft

soundmark

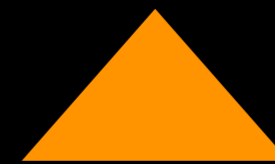
einzelartiger
von der Gemeinschaft
speziell betrachteter
Klang



Vordergrund

signal

verlockender Klang
im Vordergrund



Elementen der Klanglandschaft

hörbarer Raum

parametrischer Raum in der Notation eines Landschaftes

keynote

kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger

Hintergrund

akustischer Raum

Kontur eines Klanges
in der K.Landschaft

soundmark

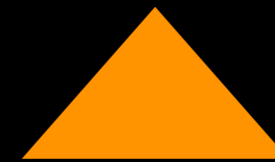
einzelartiger
von der Gemeinschaft
speziell betrachteter
Klang



Vordergrund

signal

verlockender Klang
im Vordergrund



Elementen der Klanglandschaft

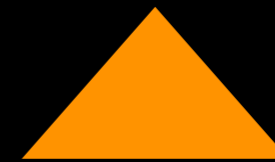
keynote

Hintergrund

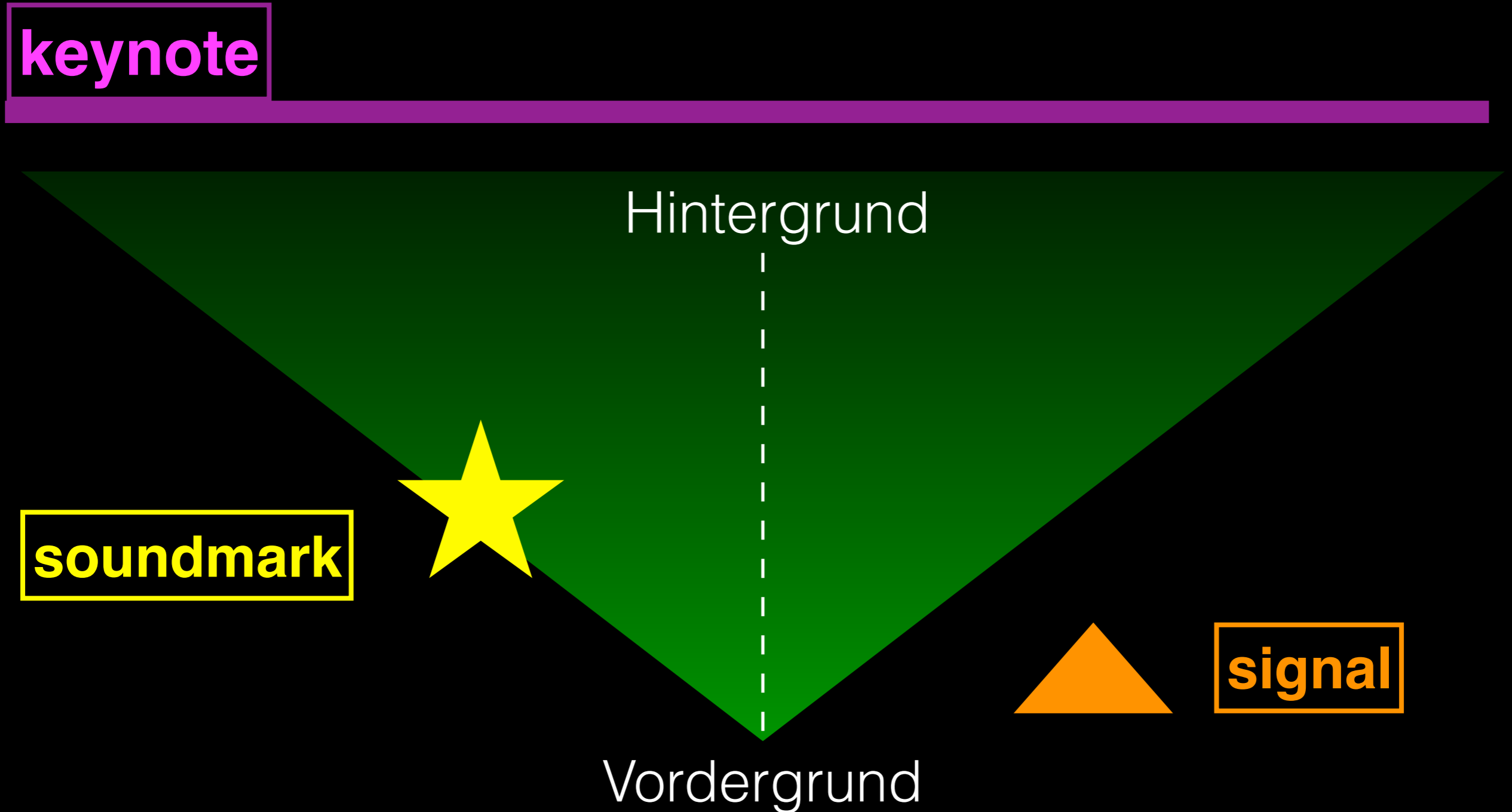
soundmark



signal



Vordergrund



Elementen der Klanglandschaft

keynote

kontinuierlich hörbarer Klang im Hintergrund
sehr häufiger

signal

verlockender Klang im Vordergrund

soundmark

einzelartiger, von der Gemeinschaft speziell betrachteter
Klang

**akustischer
Raum**

Kontur eines Klanges
in der K.Landschaft

hörbarer Raum

parametrischer Raum in der Notation eines Landschaftes

Sorten von K.Landschaften

hi-fi

alle Klangelemente
sind getrennt - identifizierbar

lo-fi

die Klangelemente
sind nicht klar getrennt

Masking

Crowding

Masking

overCrowding