

Lithuanian Academy of Music and Theatre (LMTA)
Live Space Workshops. April 20th – 25st, 2026



LITHUANIAN
ACADEMY OF
MUSIC AND THEATRE



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Estonian Academy of Music and Theatre (EAMT)
Estonian Academy of Arts (EKA)
Estonian Arnold Schönberg Society (EASchÜ)



Erasmus+

**Guards of the Night. An Attempt to Approach Southern-Benin
Traditional Music in the Context of Electroacoustic Music**

1. Guards of the Night

The piece:

- electroacoustic composition vs. traditional music from Benin (Afrika)

- fixed media
- live electronics

- Benin drums (ézinhou, ôhungbo)



Ézinhou drum
Performance Tallinn, 17.4.2026 Estonian Academy of Music and Theatre



Ôhungbo drum

1. Guards of the Night

The piece:

- semi-improvised sonoristic soundscapes vs. the attempt to present a traditional Benin piece as it is

mixture of different ideas/materials

transformation between different ideas/materials



Performance Tallinn, 17.4.2026
Estonian Academy of Music and Theatre

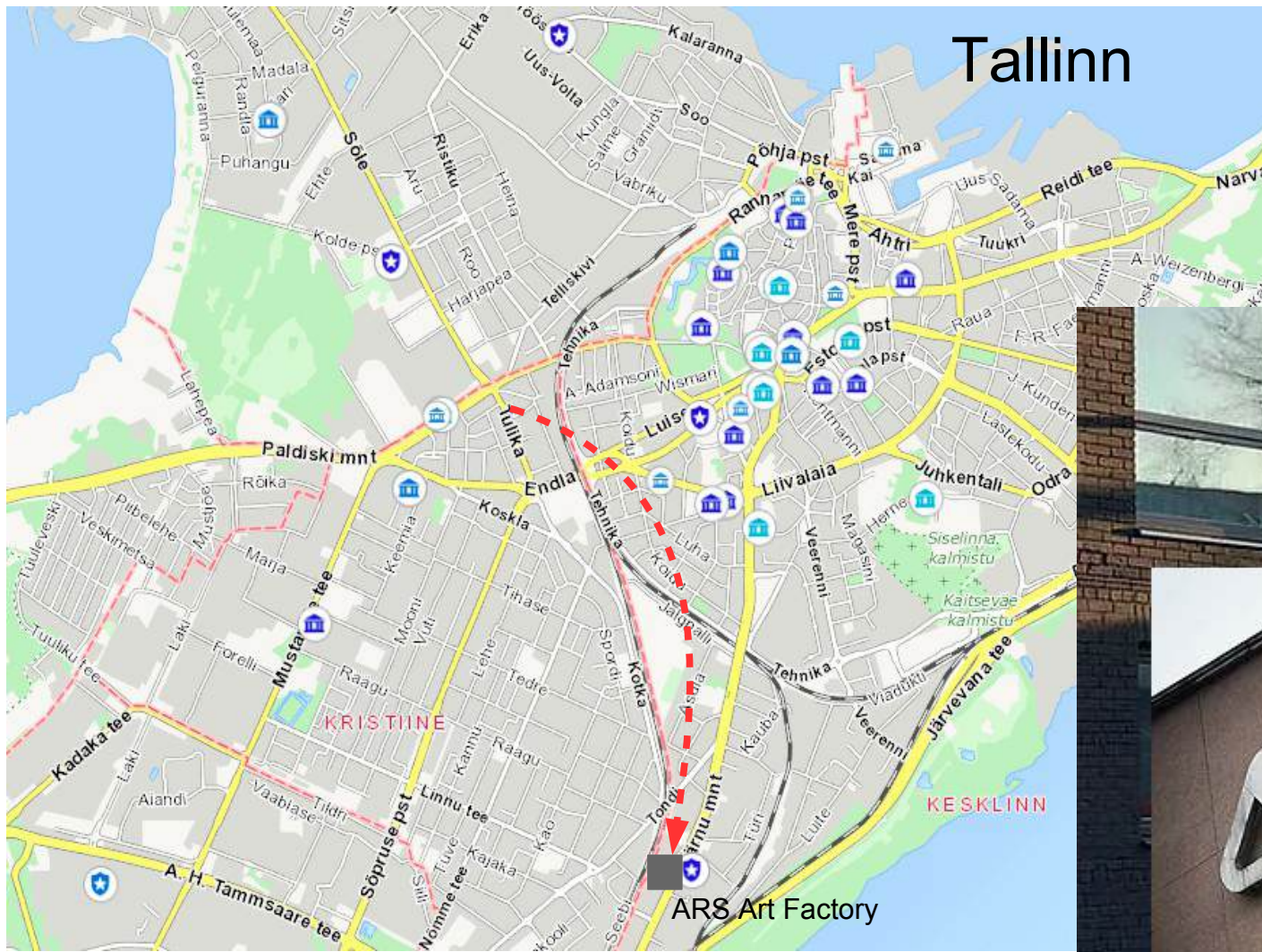
2. Fields of Interest

Three fields of interest, which influenced my creative output

- 3D spatial sound
- western microtonality
- African rhythmical complexity

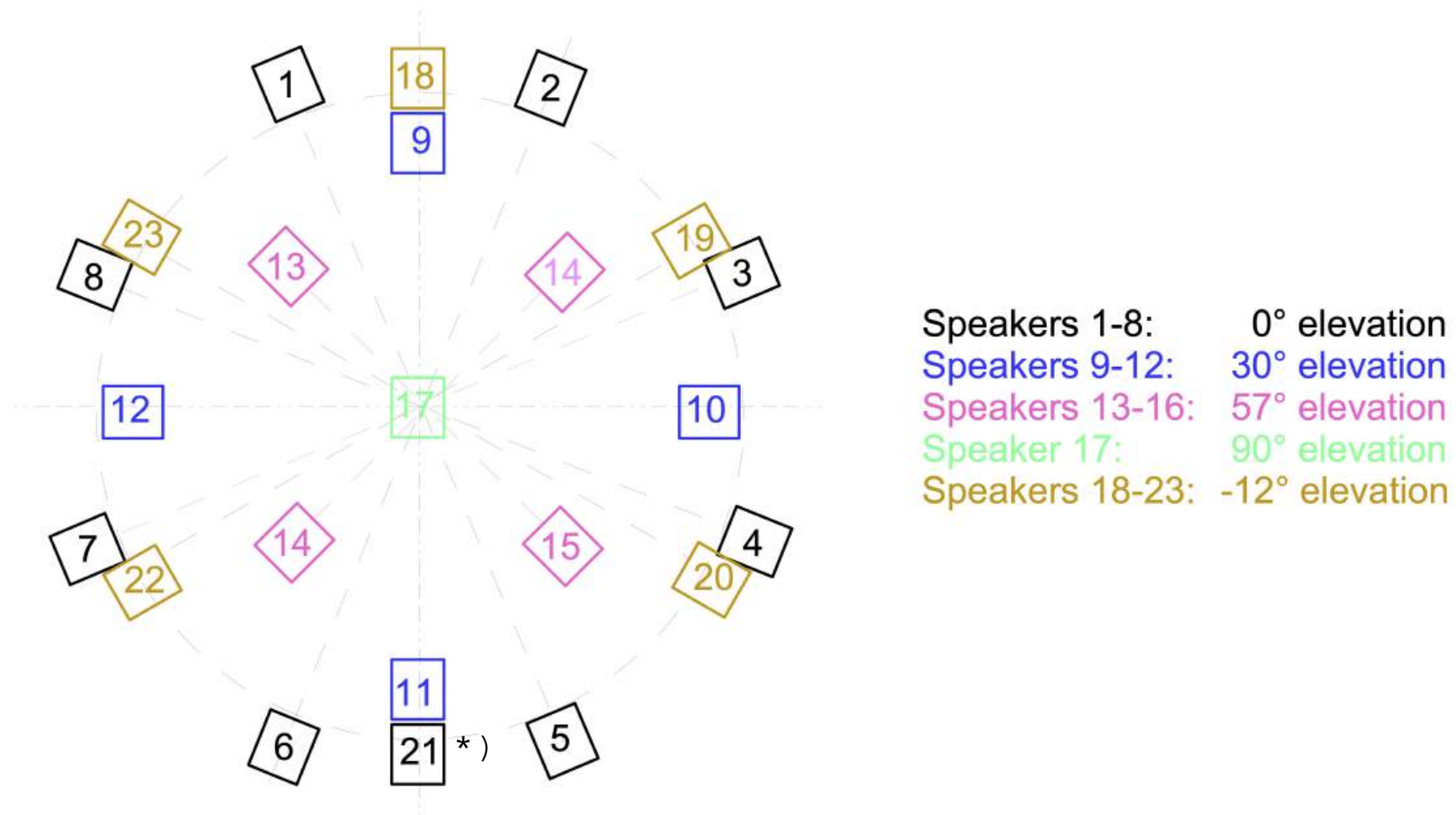
3.1 3D Spatial Sound - Loudspeaker Array

- inspiration from the 2018 Nordplus Mix workshop in Vilnius (LMTA)
- developing of an own loudspeaker system, located since 2022 at ARS Art Factory (Pärnu avenue 154, <http://www.arsimaja.ee/>)



3.1 3D Spatial Sound - Loudspeaker Array

Actual Layout of the ARS 3D Sound Studio

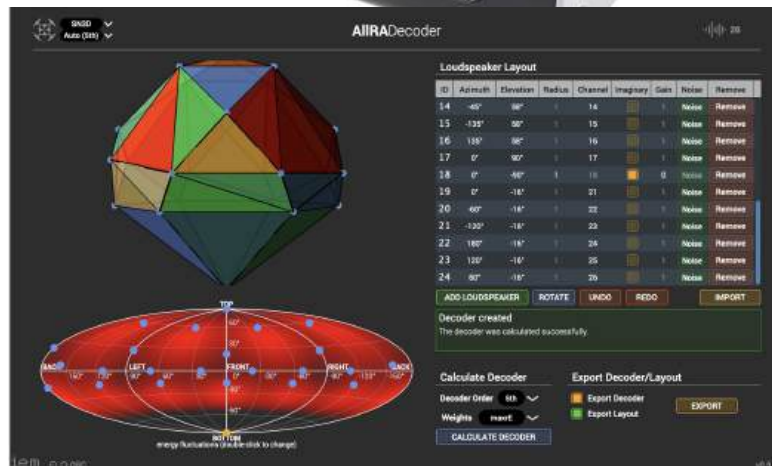


*) Speaker 21 isn't in use in the studio, because the sofa is on this place, but will be set up in the concert venues.

3.1 3D Spatial Sound - Loudspeaker Array

Technical Equipment

- 17 loudspeakers mAudio BX5 D3
- 6 loudspeakers mAudio BX5a deluxe (older model), equalized
- RME Digiface USB and 2x Ferrofish Pulse 16



3.1 3D Spatial Sound - Loudspeaker Array



3.2 3D Spatial Sound - Ambisonic Field Recording

Why ambisonic field recording? It offers the preservation of an existing spatial sound situation in 3D 360°.

Several field recordings in Estonia, Finland and Benin (Africa).

Zylia ZM-1 3rd order HOA microphone used.



3.2 3D Spatial Sound - Ambisonic Field Recording

Zylia ZM-1 3rd Order Ambisonic Microphone Array
<https://www.zylia.co/zylia-zm-1-microphone.html>

Made by the Polish company Zylia Sp. z o.o. (Pozna)

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ZYLIA ZM-1 3RD ORDER AMBISONICS MICROPHONE ARRAY


A 19-capsule Ambisonics microphone array with high-end 24-bit recording resolution. With ZM-1 in combination with the ZYLIA Studio software, you can record your music performances in a new ground-breaking way - in both 3D/360 degrees and traditional Stereo.


Connect it to your laptop, iPad, Windows tablet or ZR-1 recorder via USB and you're ready to go. It's super light and beautifully designed.


High-quality 360° audio recording - 3rd order Ambisonics 

LED ring status indicator informing about recording status 

USB connectivity makes the process of recording easy 

 19 omnidirectional digital MEMS microphones distributed on a sphere

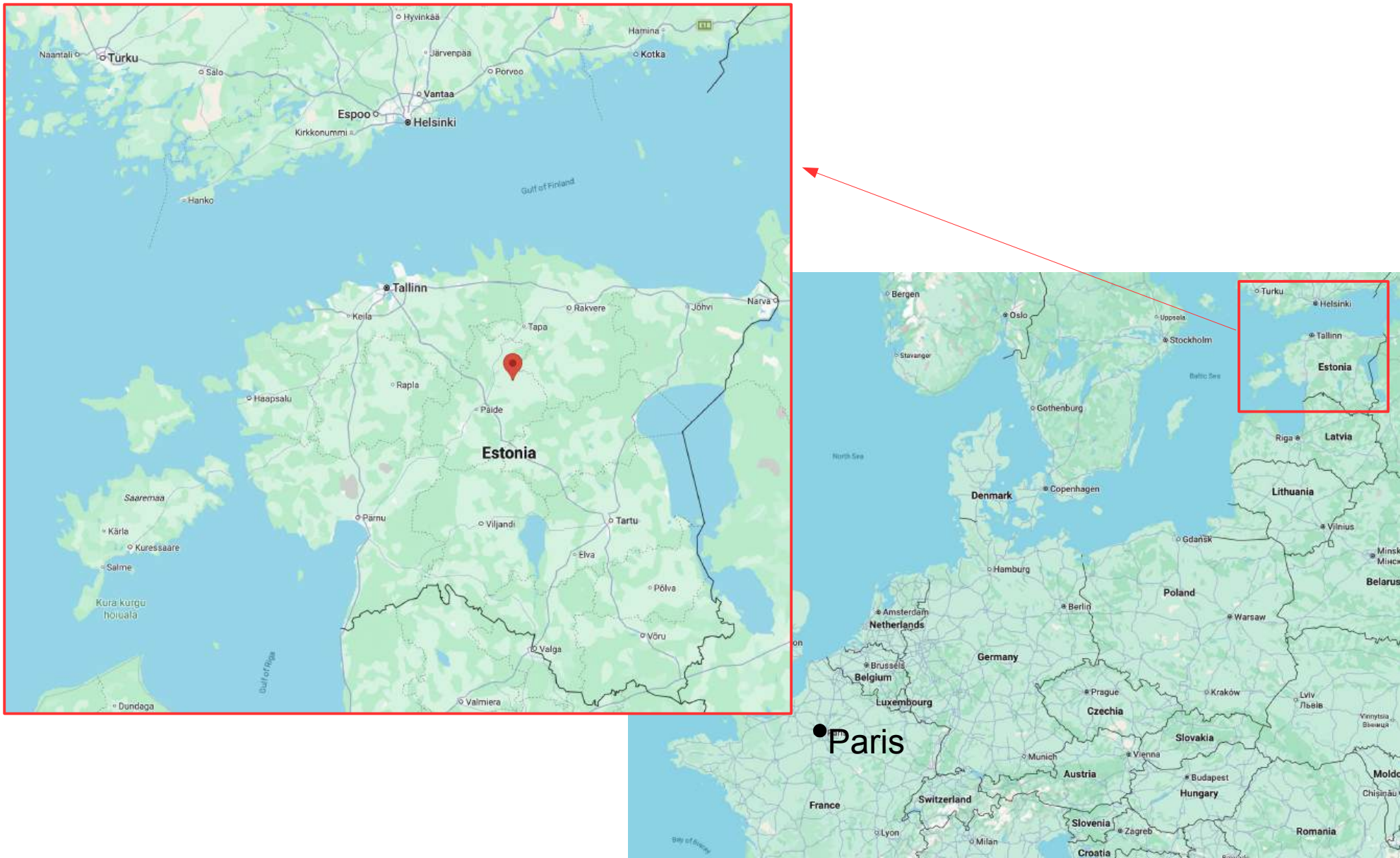
 48 kHz / 24-bit recording

 Recording - ZYLIA Studio, ZYLIA Studio PRO plugin, or any DAW

3.2 3D Spatial Sound - Ambisonic Field Recording

3.2.1 Morning Birds from Central Estonia

May 14th, 2022. Kuksema settlement near Järva-Jaani, Järva County



3.2 3D Spatial Sound - Ambisonic Field Recording

3.2.1 Morning Birds from Central Estonia

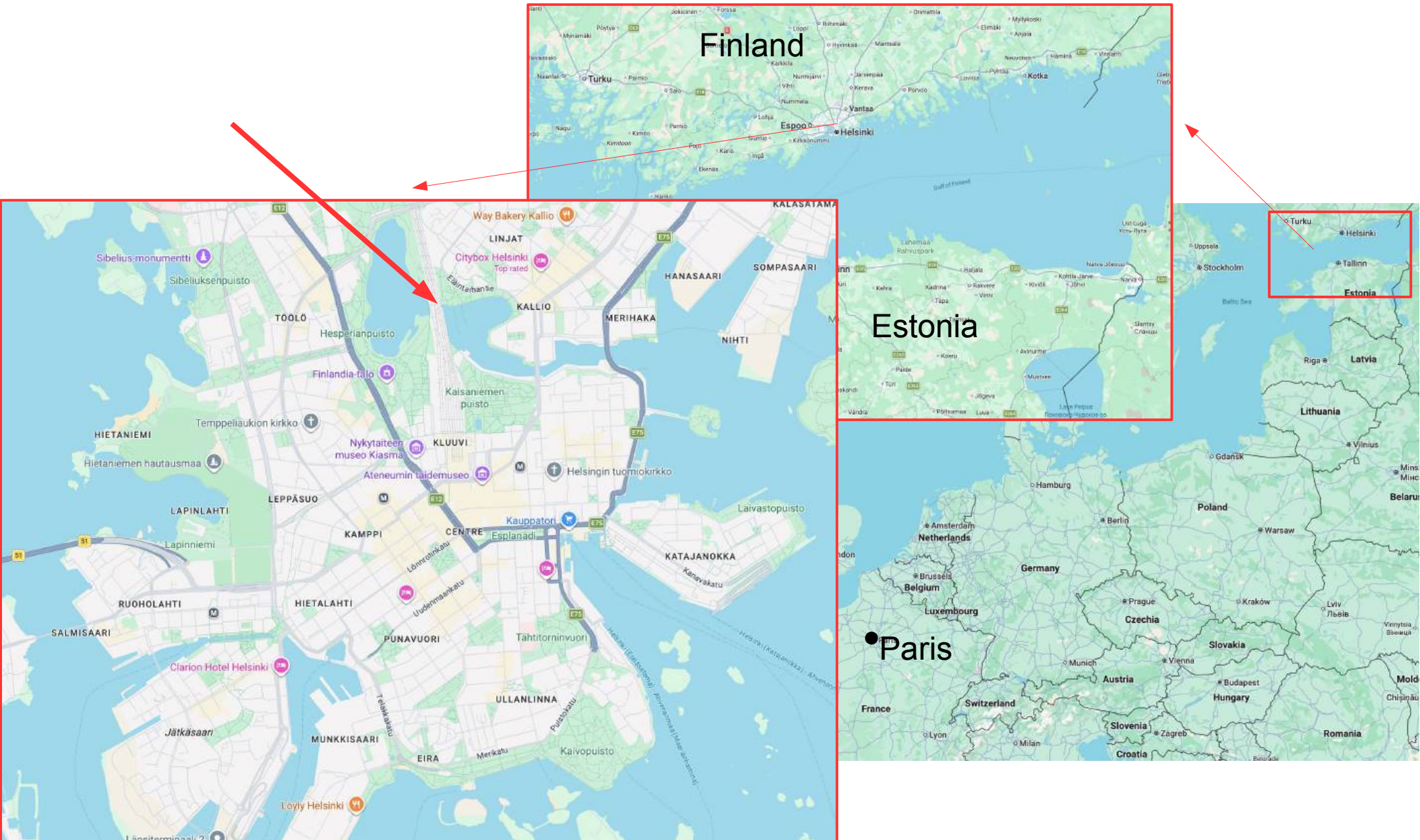
May 14th, 2022. Kuksema settlement near Järva-Jaani, Järva County



3.2 3D Spatial Sound - Ambisonic Field Recording

3.2.2 Helsinki / Finland

May 5th, 2022. Töölö district, a pedestrian and railway bridge



3.2 3D Spatial Sound - Ambisonic Field Recording

3.2.2 Helsinki / Finland

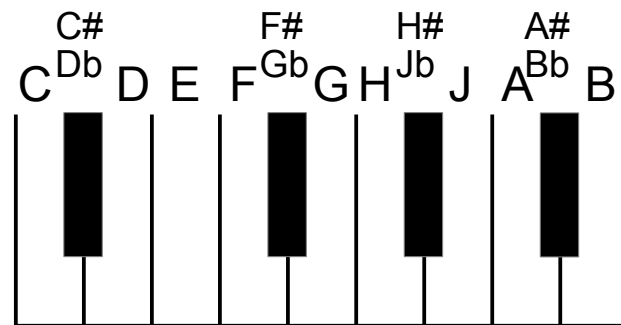
May 5th, 2022. Töölö district, a pedestrian and railway bridge



4. Western Microtonality

The Bohlen-Pierce (BP) Scale

- became familiar with it during my studies in Hamburg (2004-2007), professors: Georg Hajdu and Manfred Stanhnke
- BP was discovered independently during the 1970/80-ies by Heinz Bohlen, John Pierce and Kees van Prooijen, due to the search of an alternative system of consonant intervals and harmony
- consists of 13 steps in the framework of the interval of twelfth, the ratio 1:3
- a 9 out of this 13 pitches subscale (step sequence 2 1 1 2 1 2 1 2 1) gives the Lambda mode, considered as "white keys" "BP-diatonic" scale, filled up with four "black keys".



The Lambda-Keyboard for BP
(pitch names were proposed by Manuel op de Coul)

4. Western Microtonality

EXAMPLE 1. Deep Square No. 3,
for BP Alto Recorder, BP Clarinet, BP Tubular Bells and
Synthesizer

[Deep Square No. 3 Video](#)

The Bohlen-Pierce clarinet, made by Stephen Fox (Canada)



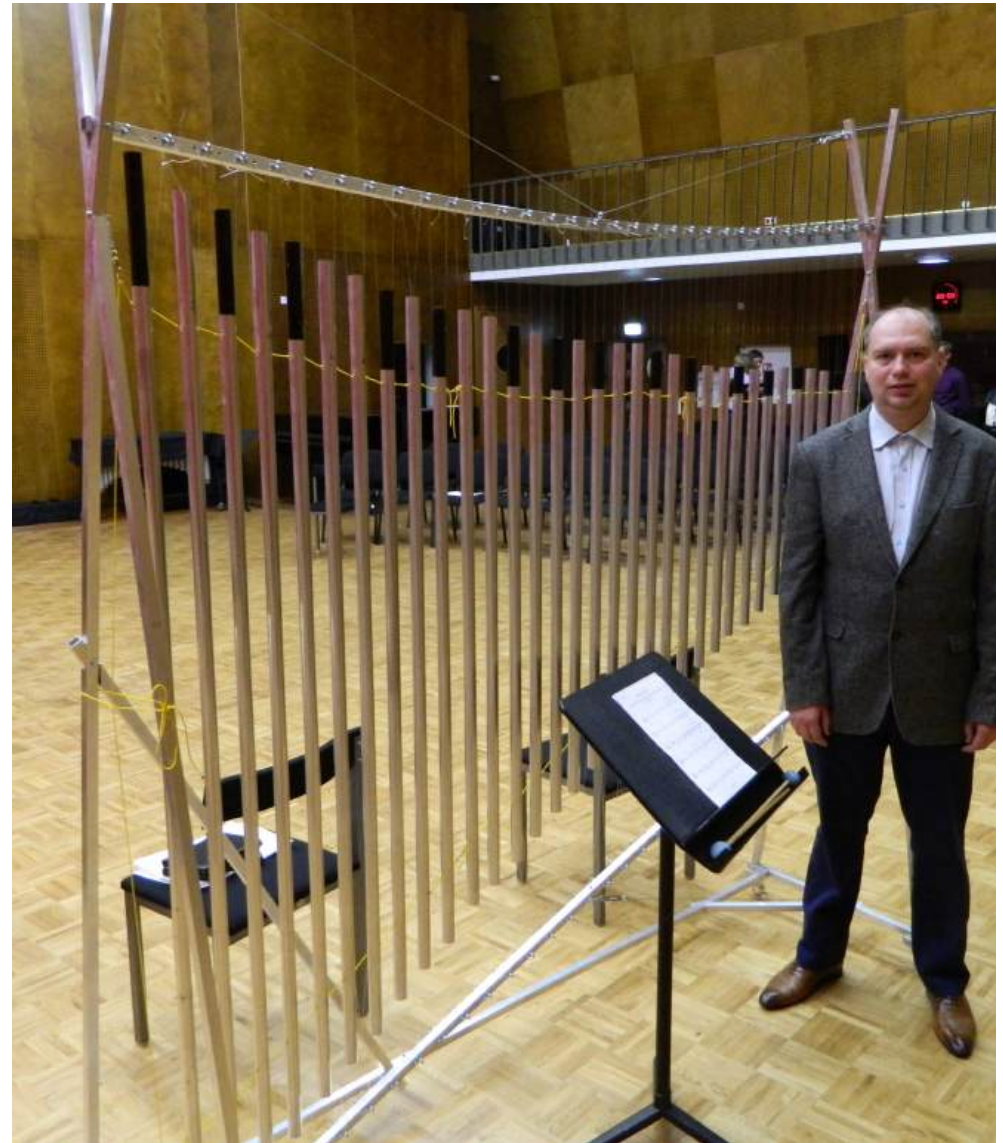
Alto recorder, modified for BP, after suggestions of Stephen Fox



4. Western Microtonality

EXAMPLE 1. Deep Square No. 3,
for BP Alto Recorder, BP Clarinet, BP Tubular Bells and
Synthesizer

Bohlen-Pierce tubular bells,
constructed by the author



5. African Rhythmical Complexity

5.1 Benin Traditional Music Project

is a project of the Estonian Arnold Schönberg Society
(www.schoenberg.ee)

The project has been launched to coordinate the research of Benin traditional music in Estonia in international cooperation.

It is ongoing since 2017, including expeditions to Benin in 2019-2020 and 2023-2024 and research projects with the Beninese musician Steve Abeni, who was invited to Pärnu (Estonia) in 2018, 2022 and 2023.

Additionally an experimental Estonian Ensemble for Traditional Benin Music has been founded for to find out, if and how it might be possible to learn and understand their music for Western-trained musicians.



5. African Rhythmical Complexity

5.1 Benin Traditional Music Project

- Benin Expedition 2017
Andrus Kallastu's residency at Villa Karo in Grand-Popo (Benin)
initial contact with Southern Benin traditional music
- Benin Rhythms Workshop 2018
Beninese musician Steve Abeni's residency in Estonia, initial studies
of traditional rhythms
- Benin Expedition 2019-2020
Andrus Kallastu and Hans-Gunter Lock, 5 field recordings in Grand-Popo
and Avlékété
- Benin Rhythms Workshop 2022
Beninese musician Steve Abeni's residency in Estonia and Finland
 - workshops to play play Southern-Benin traditional music
 - re-recording along the field recordings from the expedition of
2019-2020
- Benin Rhythms Workshop 2023
Beninese musician Steve Abeni's residency in Estonia and Finland
 - workshops to play Southern Benin traditional music
 - Estonian Benin Traditional Music Ensemble

Link:

[Benin Traditional Music Project](#)

5. African Rhythmical Complexity

5.2 Field Recordings in Benin

Benin Expedition:

December 1st, 2023 - January 15th, 2024
Andrus Kallastu and Hans-Gunter Lock

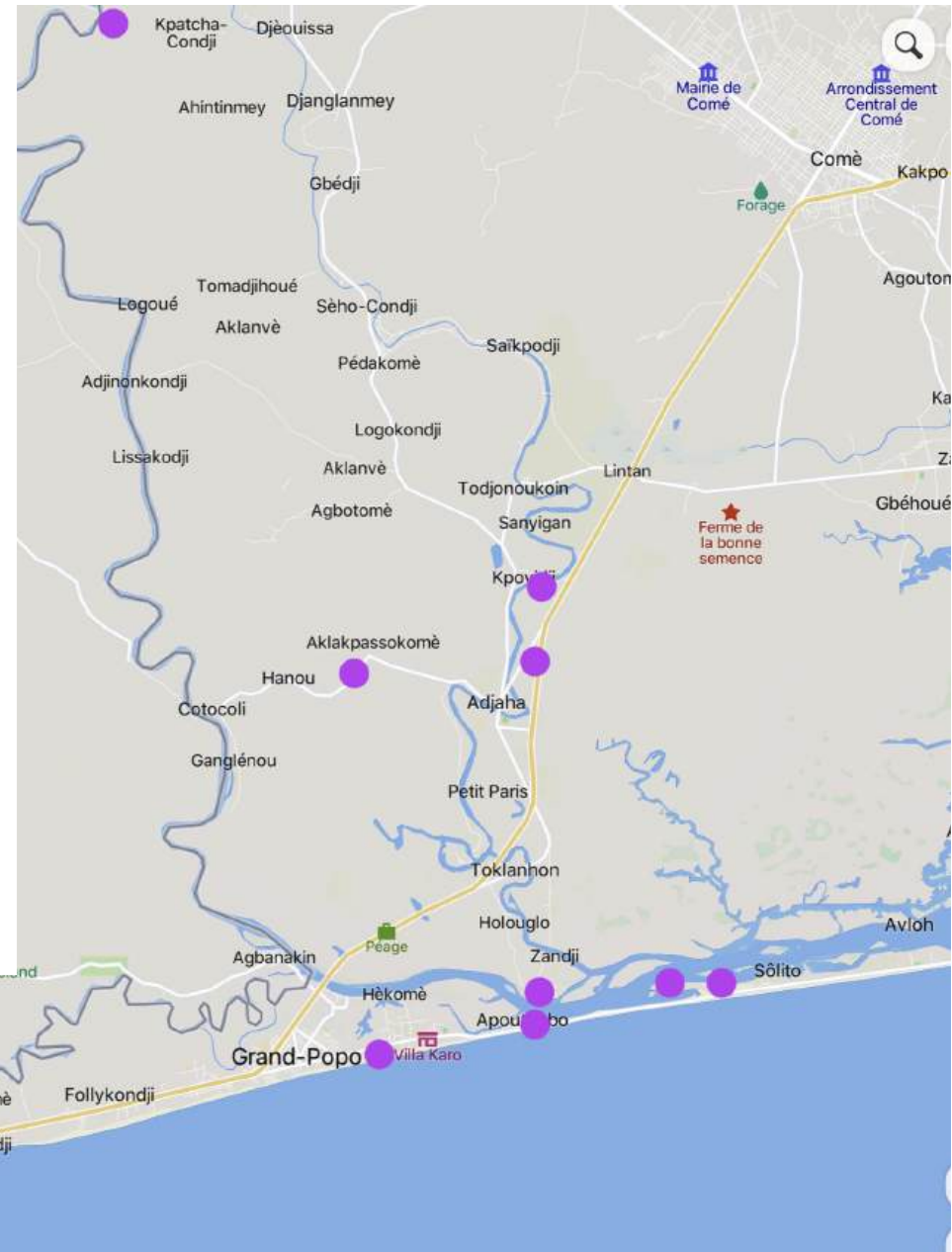
Results:

- 17 field recordings in the region of Grand-Popo
- 14 workshops with Grand-Popo based Beninese musicians work with MIDI simulations for to transcribe and verify the traditional rhythms:

Agbadja, Toba, Azandro, Solé, Káká, Blékété, Atchina, Zinli, Tronhoun, Kpodji houn

Additionally we offered for Beninese musicians workshops in Western Music notation. The participants composed original pieces, which were finally performed.

Locations of the field recordings in the Grand-Popo area.



5. African Rhythmical Complexity

5.2 Field Recordings in Benin

December 1st, 2023 - January 15th, 2024



Grand-Popo area in Benin

Results: 13 multidevice recordings (music) and some ambisonic ambient recordings

Goal: recordings for analyzing and transcribing polyphonic percussion music of this region. Source separation of ambisonic recordings might be helpful.

Up 11 audio/video devices used simultaneously.

Hans:

- Zyia ZM-1 (ambisonic)
- Zoom H3-VR (ambisonic)
- Zoom H2n
- Zoom H5
- iPhone 11 camera
- Leica camera

Andrus:

- Zoom H4n
- Zoom H8 camera
- 2x Zoom H4 camera
- Android phone camera

5. African Rhythmical Complexity



Gahônou village

December 21st, 2023

musical performance
recording



5. African Rhythmical Complexity

Caléta stilt game performance

Gbeffa Sekanmey, January 1st and 2nd, 2024



5. African Rhythmical Complexity



Caléta stilt game performance
Gbeffa Sekanmey, January 1st
and 2nd, 2024

5. African Rhythmical Complexity

5.3 Analyzing Southern-Benin Traditional Music

Attempts to transcribe in Western music notation

Western music notation as a (not ideal) tool for analyzing and understanding of the musical-structural content

Transcription examples:

Agbadja, recording from December 25th, 2023:

- Beginning of the
- Faster rhythmical version appearing later
- Ending

Agbadja, research recording with solo drummer François Ozo from January 9th, 2025

11

Gk.

So. Dr.

Cl.

Kp.

Ôs.

Handwritten annotations for So. Dr. staff: R L R R ... (measures 11-12); L L R L R L R L R L R L (measures 12-13); 2. 3. 4.- 5. 6.- ml 3. 2.

14

Gk.

So. Dr.

Cl.

Kp.

Ôs.

Handwritten annotations for So. Dr. staff: R L R (measure 14); LR L L R L R L R (measures 15-16); 3. 3. 4. 5.- 1. 2. 3.

After the introduction:

231225 2.18:50 Djimey
L R L R L L R L L R LR L R L LR L R L R L

231225 2.18:41 and 2.19:02 Djimey
R L R L R L R L R L R

231225 2.18:41

Ending:

231225 2.32:21 Djimey

R L R R L L R L L R R R ml ml ml

L R R L L R L L R L L L

R R R L R R L R L R L R L

Agbadja solo part

Gankokoé

Solo drum

12/8

C D E F G A A# B C

1. L RLRLRL RL RLRLRL R

2. L RLRLRL RL RLRLRL R

3. L RLRLRL RL RLRLRL R

4. L RLRLRL RL RLRLRL R

R L R R

9:6 Lm Lm Lm

Gk.

solo

5

R R L R L

1. R R R 2. R R R 3. ... 4. 5.

(6.) L R L R L R

Lm A# C D E F# G#

Gk.

solo

9

2. L R L R L R 3.- L R L R L R 1. R R 2. ... 3. 4. 5. 6.

Agbadja solo part

13

Gk.

solo

(7.) R R LR LR L L L ...

L RLRLR

1. L RLRLRL R 2. L RLRLRL R

3. 4. 5.

3 3 3 3 3

17

Gk.

solo

3. L RLRLRL R 4. L RLRLRL R

LR LR RL LR RL RL R

3 3 9 3 3

21

Gk.

solo

R L 1. L RLRLRL R 2. L RLRLRL R 3. L RLRLRL R

RRLR LR LR RL R 3 L R RL LRR

3 3 3 3 9 3 3

6. A Composition Inspired by Benin Traditional Music

Kuu, päike ja nukruse orelipunkt / Moon, Sun and Pedal Point of Sadness (2024)

For reciter, choir, flute and Benin traditional music instruments (ôhounbo solo drum, kpwalé drum, ézinhou drum, cléon drum, kpéssin drum, 5 gankokoé double bells), texts by Ilmar Laaban
Premiere; 9.8.2025, SUMMER ARIA 2025, Synthesis of Arts. FRAMES 6, Mikromaailm. Pärnu Elisabeth Church.

Premiere video: <https://youtu.be/sDG6D6yJW9g>

Score:

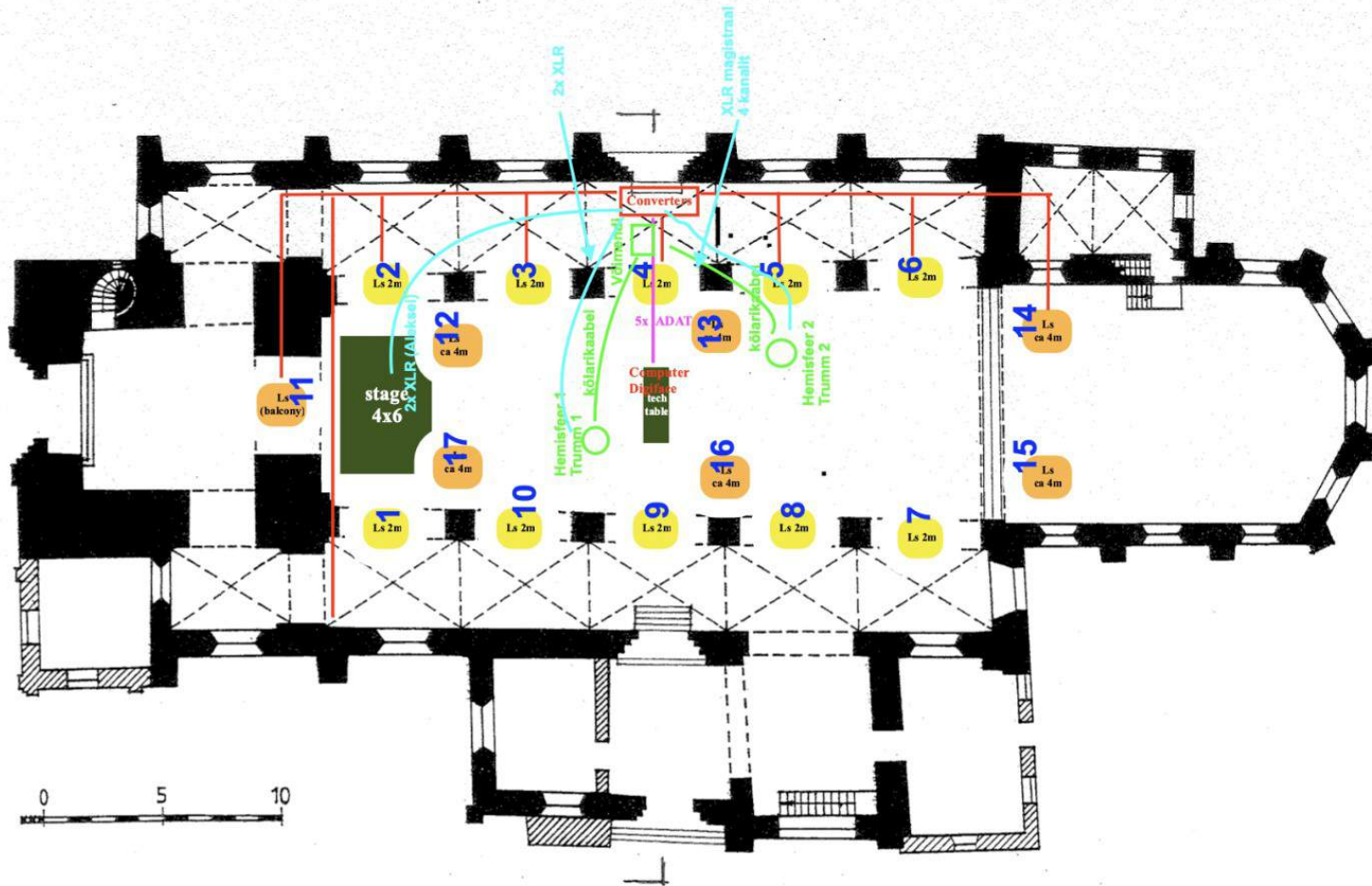
https://schoenberg.ee/SB_050_Publikatsioonid/COMP_2025_TEOSSED.pdf
pp. 59–89



7. Guards of the Night

Piece created in 2025

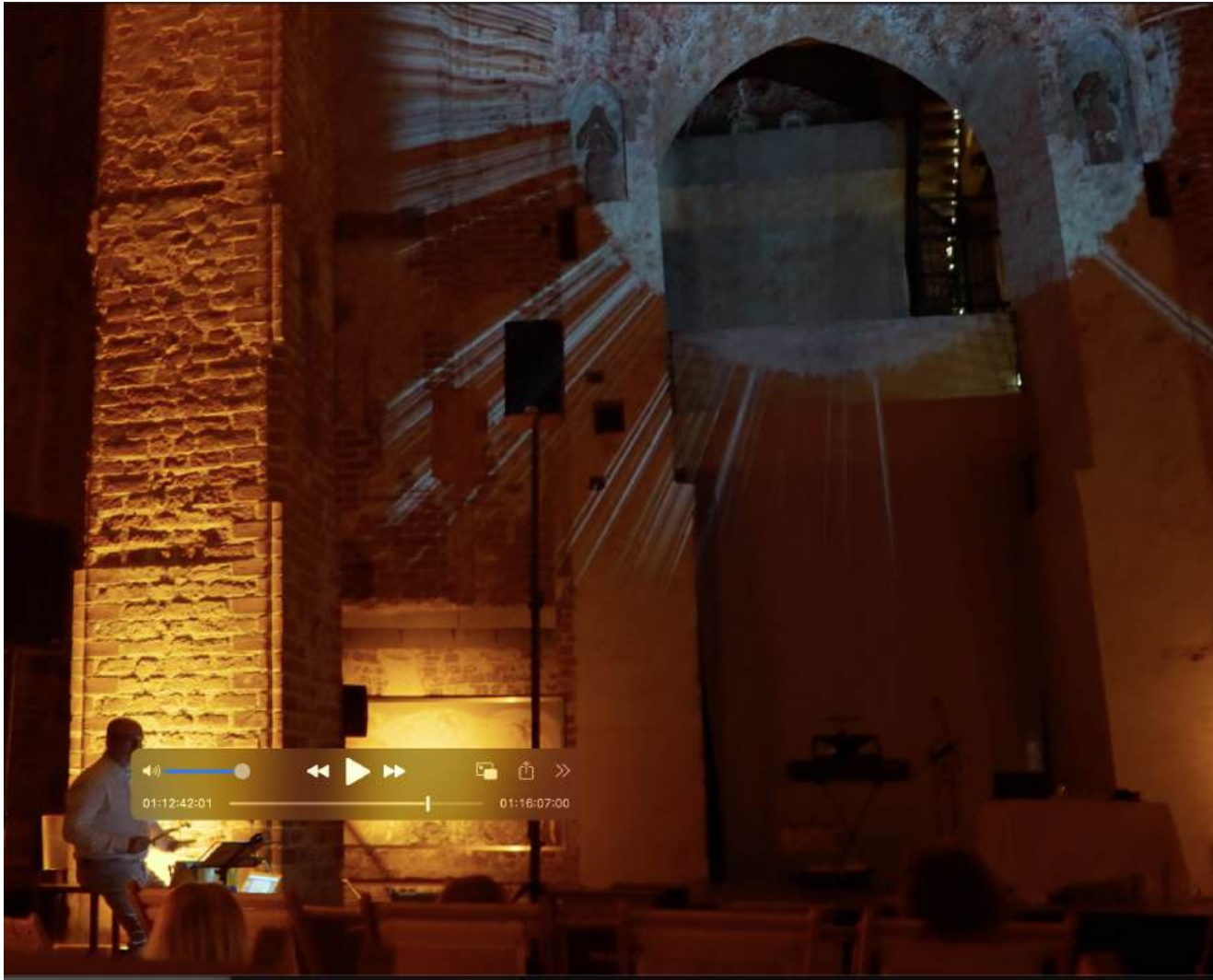
First performance in Tartu St John's (Jaani) Church during All Souls Night concert



7. Guards of the Night

Piece created in 2025

First performance in Tartu St John's (Jaani) Church during All Souls Night concert



7. Guards of the Night

Background: Zangbeto ceremony, which is practiced in Southern Benin and nearby regions. Originated at the Kingdom of Àjà (Porto Novo), the Zangbetos are the traditional vodun religion guardians of the night (Wikipedia: [Zangbeto](#))



Video demonstrating Zangbeto

The Káká rhythm is mainly played during a Zangbeto ceremony. At the beginning only with bells and rattle, later and at the end together with all the drums.

7. Guards of the Night

Zangbeto mask dance ceremony

Hévé, December 24th, 2023



7. Guards of the Night

Zangbeto mask dance
ceremony

Hévé, December 24th, 2023



7. Guards of the Night

Ôhôngbo solo drum part:

Öö valvriud

KUTSE

soolotrumm

Hans-Gunter Lock

The first system of musical notation consists of two staves. The top staff is a grand staff with a treble clef and a 12/8 time signature. The bottom staff is a grand staff with a bass clef and a 12/8 time signature. The notation includes various rhythmic symbols such as eighth notes, quarter notes, and rests, along with specific drum notation symbols like 'x' and 'y'.

The second system of musical notation consists of two staves. The top staff is a grand staff with a treble clef and a 12/8 time signature. The bottom staff is a grand staff with a bass clef and a 12/8 time signature. The notation includes various rhythmic symbols such as eighth notes, quarter notes, and rests, along with specific drum notation symbols like 'x' and 'y'.

The third system of musical notation consists of two staves. The top staff is a grand staff with a treble clef and a 12/8 time signature. The bottom staff is a grand staff with a bass clef and a 12/8 time signature. The notation includes various rhythmic symbols such as eighth notes, quarter notes, and rests, along with specific drum notation symbols like 'x' and 'y'.

The fourth system of musical notation consists of two staves. The top staff is a grand staff with a treble clef and a 12/8 time signature. The bottom staff is a grand staff with a bass clef and a 12/8 time signature. The notation includes various rhythmic symbols such as eighth notes, quarter notes, and rests, along with specific drum notation symbols like 'x' and 'y'. The system concludes with the text "+ IMPRO" in the top staff.

7. Guards of the Night

Ôhounghbo solo drum part:

2 Öö valvurid - Káká

♩. = 215

41 L, R = Stick 9x 1. 2. 3. 4. 5. 6.- R = Stick

L
R

46

51

57

63

69 repeat from m. 41



THANK YOU FOR YOUR ATTENTION!