The Red List / Punainen kirja

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(2021)

for pipe organ, accordion, tape machines, live-electronics,
bird whistles, scissors, feathers and shaker

Composers:

Tytti Arola & Kalle Vainio

Musician:

Susanne Kujala

Info about the piece:

The Red List (2021) is a composition-installation for pipe organ, accordion, tape machines and live-electronics. The piece researches the extinction of pieces, the Holecene extinction also referred as the sixth mass extinction.

Time and resilience play important parts in the piece – the duration of the piece is five hours. Small groups of audience members are invited to experience 40-minutes glimpses of the whole performance, a possibility to peek to the constructed sonic environment. Biodiversity is portrayed through versatile soundscapes as well as through the flexibility of the performer's chance to improvise and interpret freely the compositional fragments. The fragments of the piece suggest also identifying to other species: can we understand better the other species if we try to put ourselves to their position?

The tape machines are amplified in different parts of the space and the sound of the instruments is extended with sound manipulation. The space simulates an environment where each sonic component has their own ecological niche. The tape machines are playing tape loops that are demagnetized during the piece – slowly the environment is silenced, and monotonic hum remains. The performance consists of different kind of nature simulations when the interpretations of various species take over the space.

The piece was premiered 11.9.2021 at Helsinki Temppeliaukio Church 19:00-00:00. The premiere was organized as a benefit concert and there was a chance to donate to The Finnish Association for Nature Conservation.

Susanne Kujala, pipe organ and accordion
Kalle Vainio, composition and tape machines
Tytti Arola, composition and live-electronics
Olivia Pohjola, light design

The piece received valuable funding from Kone Foundation as well as from Samuel Huberin Taidesäätiö. We are very grateful for the support!

1. Levät *Algae*
2. Sienieläimet, polttiaiseläimet, sammaleläimet, makkaramadot ja limamadot
Porifera, Cnidaria, Bryozoa, Priapulida & Nemertea
3. Äyriäiset *Crustacea*
4. Suorasiipiset *Orthoptera*
5. Verkkosiipiset, kaislakorennot, käärmekorennot ja kärsäkorennot
Neuroptera, Megaloptera, Raphidioptera & Mecoptera
6. Kaksisiipiset, *Diptera*: Sääsket *Nematocera*
7. Kaksisiipiset, *Diptera*: Kärpäset *Brachycera*

8. Sammalet *Bryophyta*
9. Nilviäiset, *Mollusca:* Kotilot *Gastropoda*
10. Nilviäiset, *Mollusca*: Simpukat *Bivalvia*
11. Kolmisukahäntäiset *Thysanura*
12. Nivelkärsäiset *Hemiptera*
13. Pistiäiset *Hymenoptera*
14. Kalat *Pisces*

15. Putkilokasvit *Tracheophyta*
16. Nivelmadot *Annelida*
17. Päiväkorennot *Ephemeroptera*
18. Ripsiäiset *Thysanoptera*
19. Vesiperhoset *Trichoptera*
20. Matelijat ja sammakkoeläimet *Reptilia & Amphibia*

21. Sienet *Fungi*
22. Hämähäkkieläimet, *Arachnida:* Hämähäkit *Araneae*
23. Sudenkorennot *Odonata*
24. Jäytiäiset *Psocoptera*
25. Perhoset *Lepidoptera*
26. Linnut *Aves:* Pöllöt *Strigidae*

27. Jäkälät *Lichenes*
28. Tuhatjalkaiset *Myriapoda*
29. Kovakuoriaiset *Coleoptera*
30. Koskikorennot *Plecoptera*
31. Kierresiipiset *Strepsiptera*
32. Nisäkkäät, *Mammalia*:
Susi, Ahma, Naali, Hilleri, Liito-orava, Pikkulepakko
Canis lupus, Vulpes lagopus, Mustela putorius, Pteromys volans, Pipistrellus nathusii

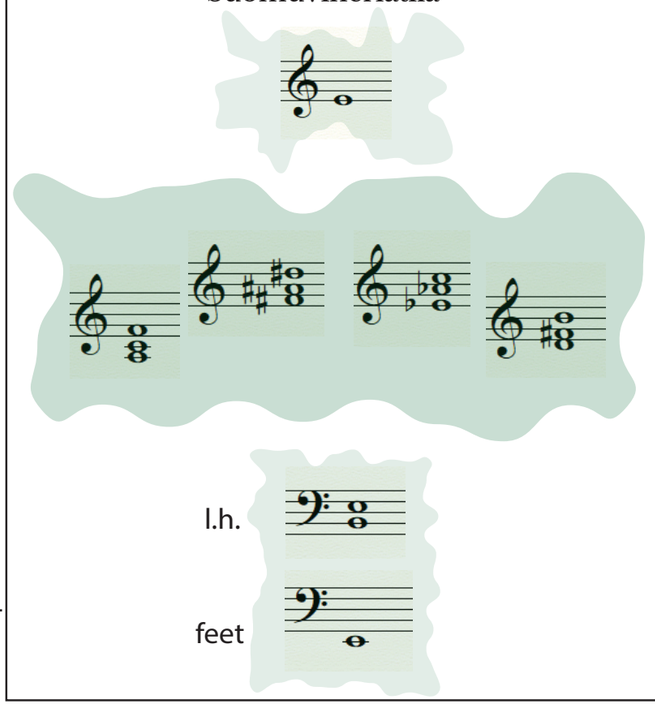
1. Levät

Optional voices:
You can play in
any place (rhythms)

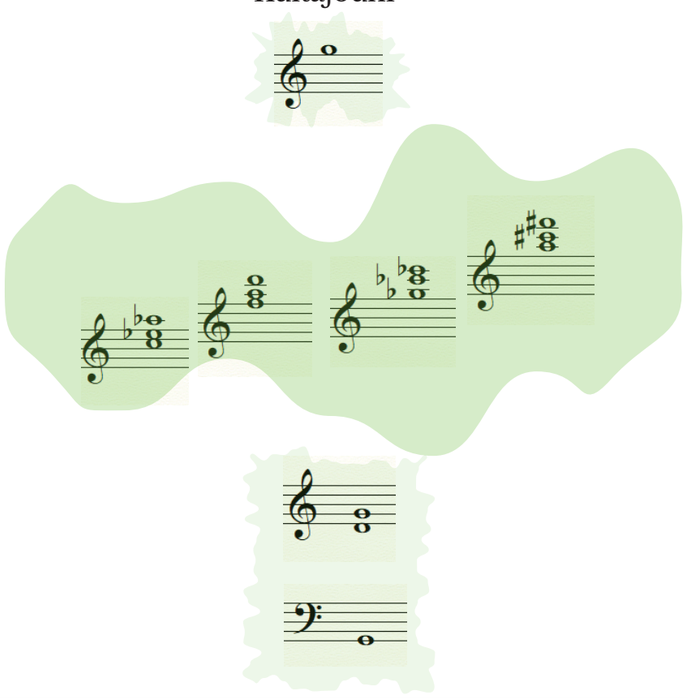
Chords:
You can play these
four chords in
any order you like
and repeat them.
Each chord lasts 2-5s

Pedal points:
You can choose how
many notes are playing.

Suomuviherlätkä



Kultajouhi

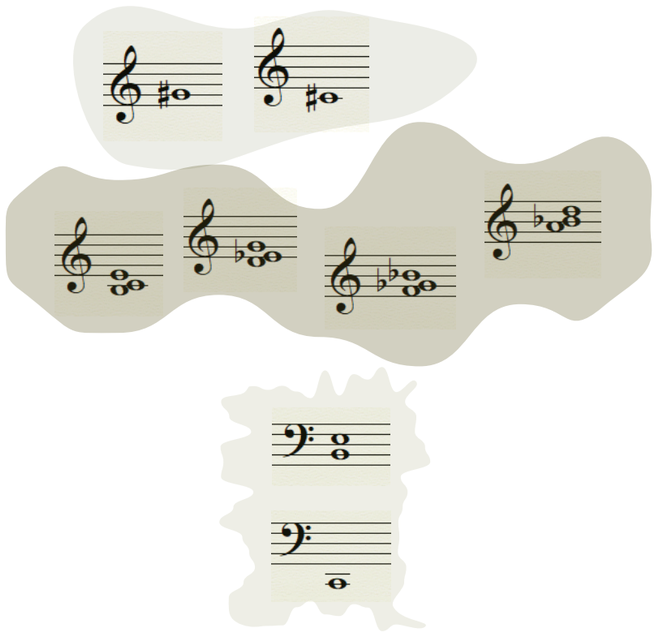


Tähtimukulaparta:

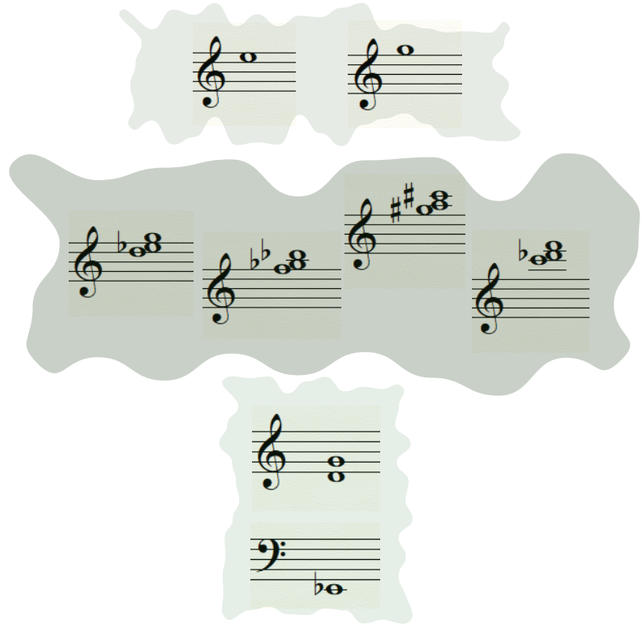
When you are switching
to another algae, play this chord
5-10 seconds.



Kalkkinäkinparta



Lehosyherönauha



2. Sienieläimet, polttiaiseläimet, sammaleläimet, makkaramadot ja limamadot

Puutteellisesti tunnetut = DD, Data Deficient

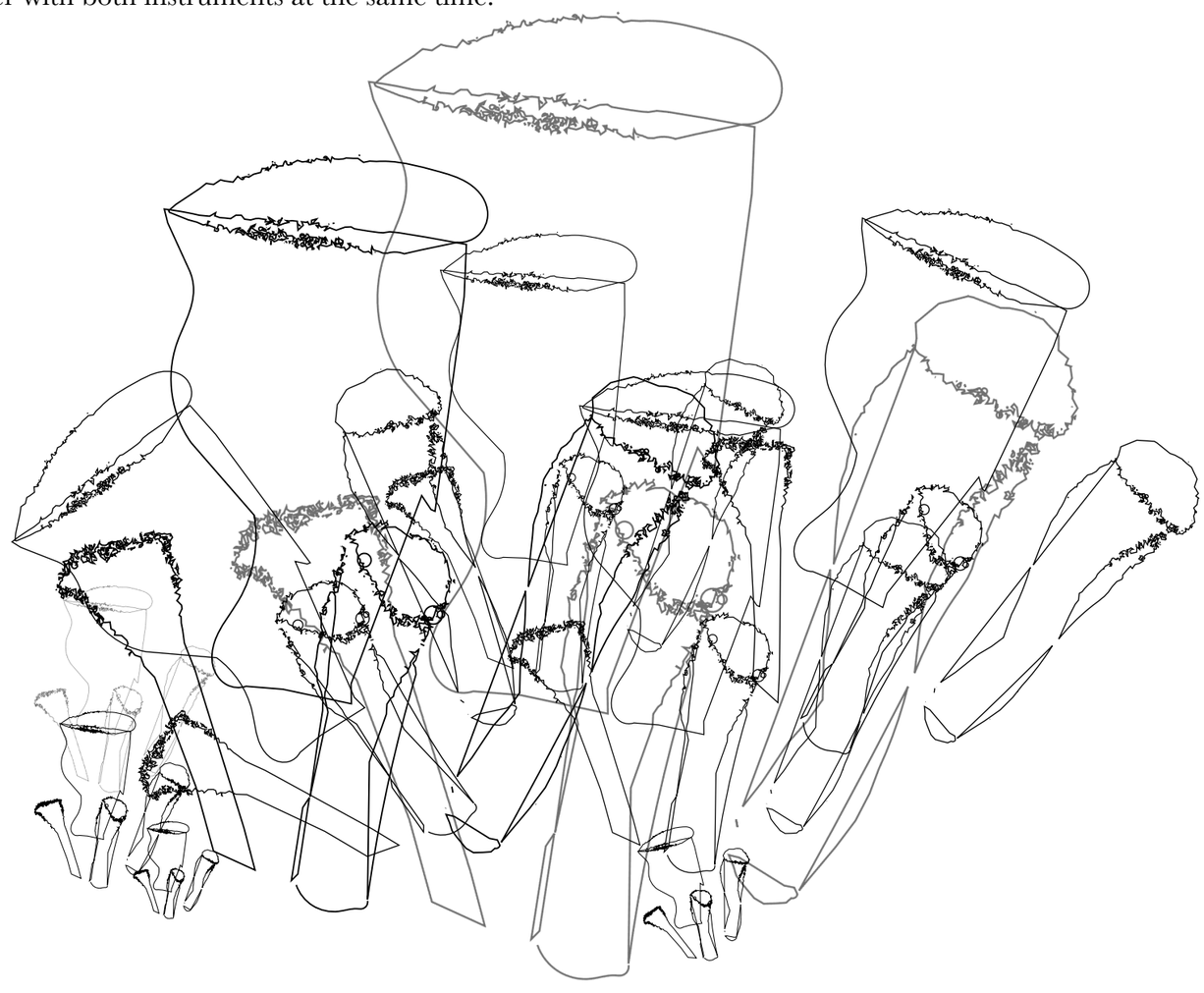
Accordion and organ:

1) Play long fifths in high register at the same time with accordion and organ. When you find pitches that create interference, leave pencils or weights to press down those pitches in the keyboard of the organ. Start walking in the space with the accordion and try to emphasize the interference beats.

2) Go back to the organ. Play in low register major sevenths: lower note with organ and upper with accordion.

3) Play tight clusters in low register with both instruments at the same time.

Duration: 3-5 minutes



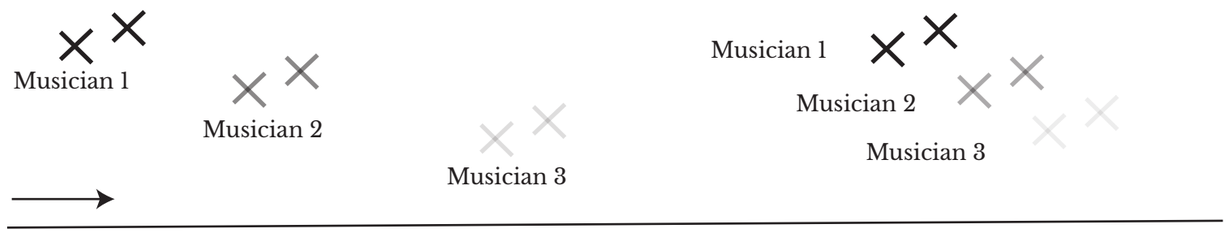
3. Äyriäiset

Choose

A

Jokirapu

Musicians uses scissors to create sounds marked with X. Send signals to each other!

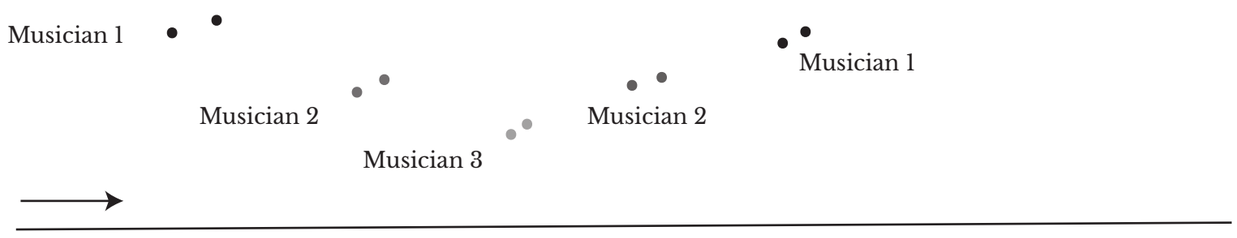


or

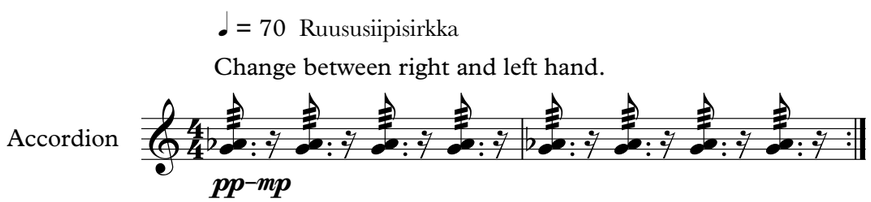
B

Pohjanlehtijalkainen

Musicians snaps their fingers in given rhythms.



4. Suorasiipiset





Accordion:
Repeat the figures as many times until you hear it looped in the electronics. You can repeat the passages.

Musician 1 (tape machine):
Amplify the spinning sound of the reel (Palosirkka).

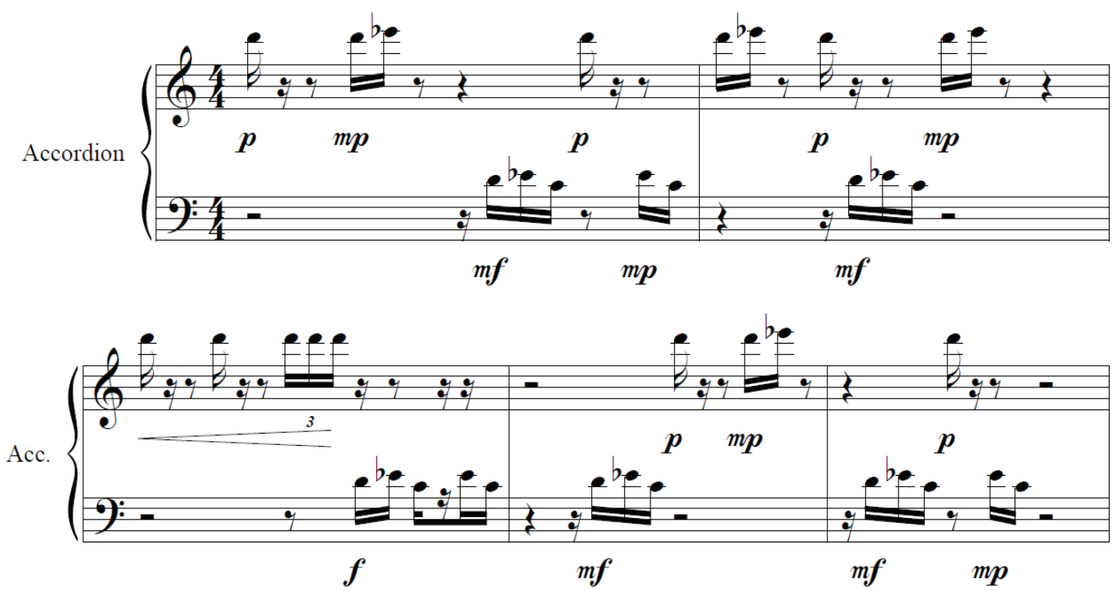
Musician 2 (computer):
Loop the accordion passages.

Duration: 2-4 minutes

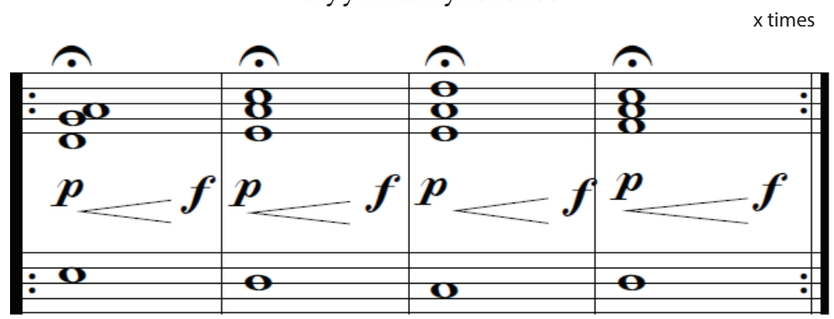
5. Verkkosiipiset, kaislakorennot, käärmekorennot ja kärsäkorennot

Begin to play Siroharsokorento and then move freely to any other boxes. You can decide to use different tempos if you like. Dyynihämykorento is the only box you can loop over and over again.
You can also play same boxes with a new tempo if you like, but looping is only allowed in Dyynihämykorento.
Duration 2-3 minutes.

Siroharsokorento



Dyynihämykorento



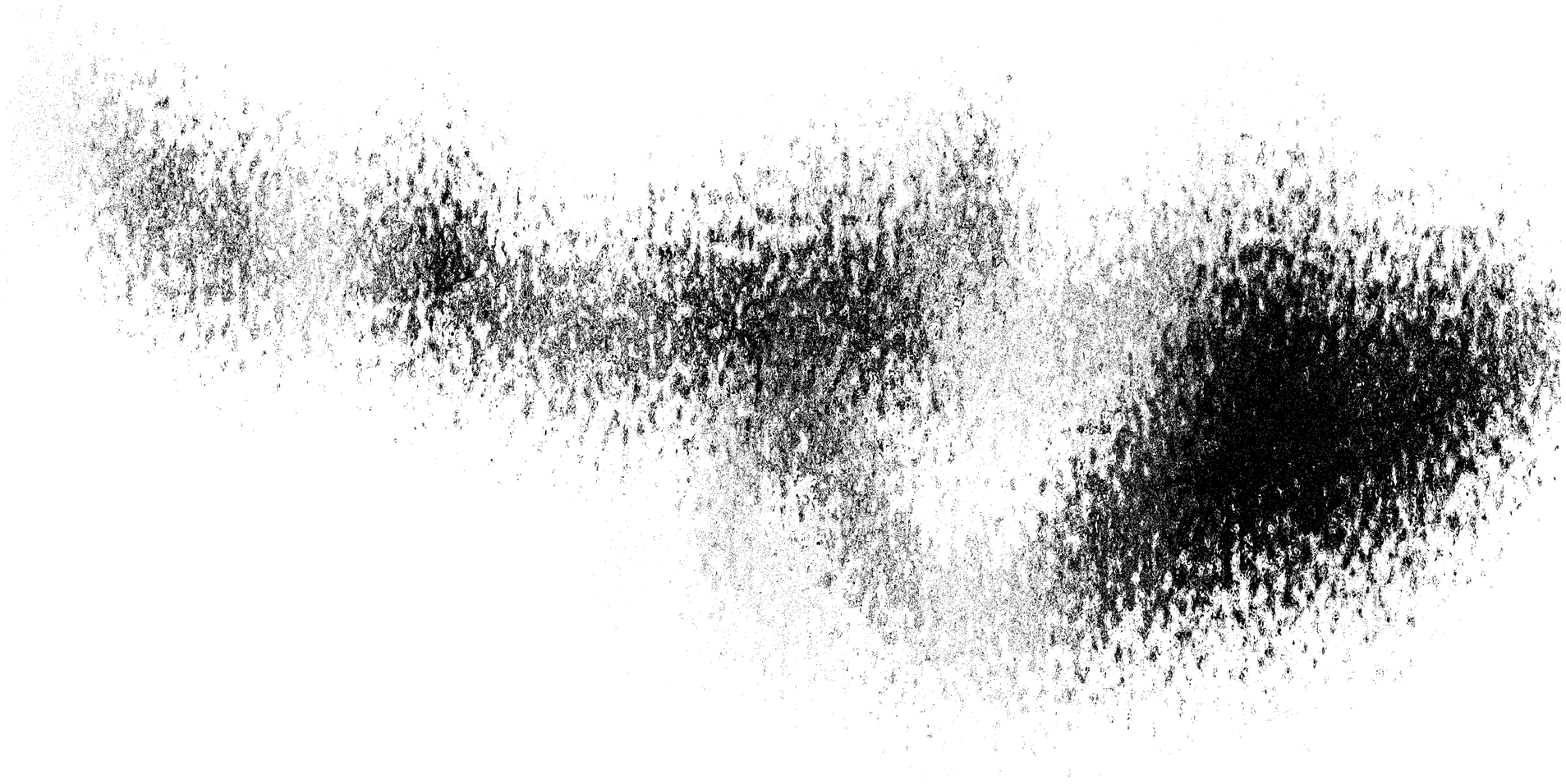
Virtakorento



Pikkumuurahaiskorento



6. Kaksisiipiset: Sääsket



Organ or Accordion:
Use different kind of keyclicks and very high pitches to create swarms of Nematocera (mosquitos).

Musician 2 (computer):
Add multiple delays and loop the sounds.

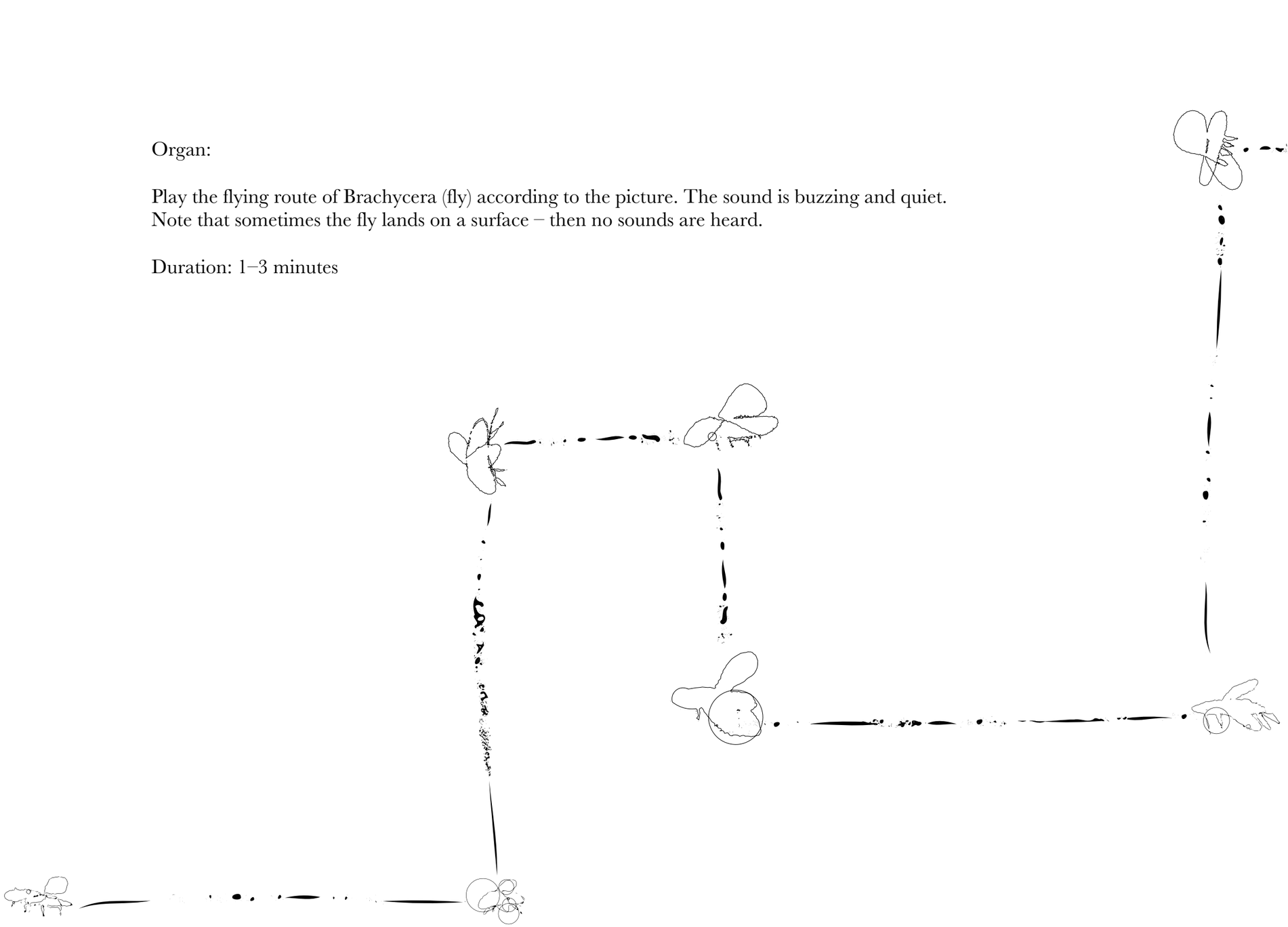
Duration: 3-5 minutes

7. Kaksisiipiset: Kärpäset

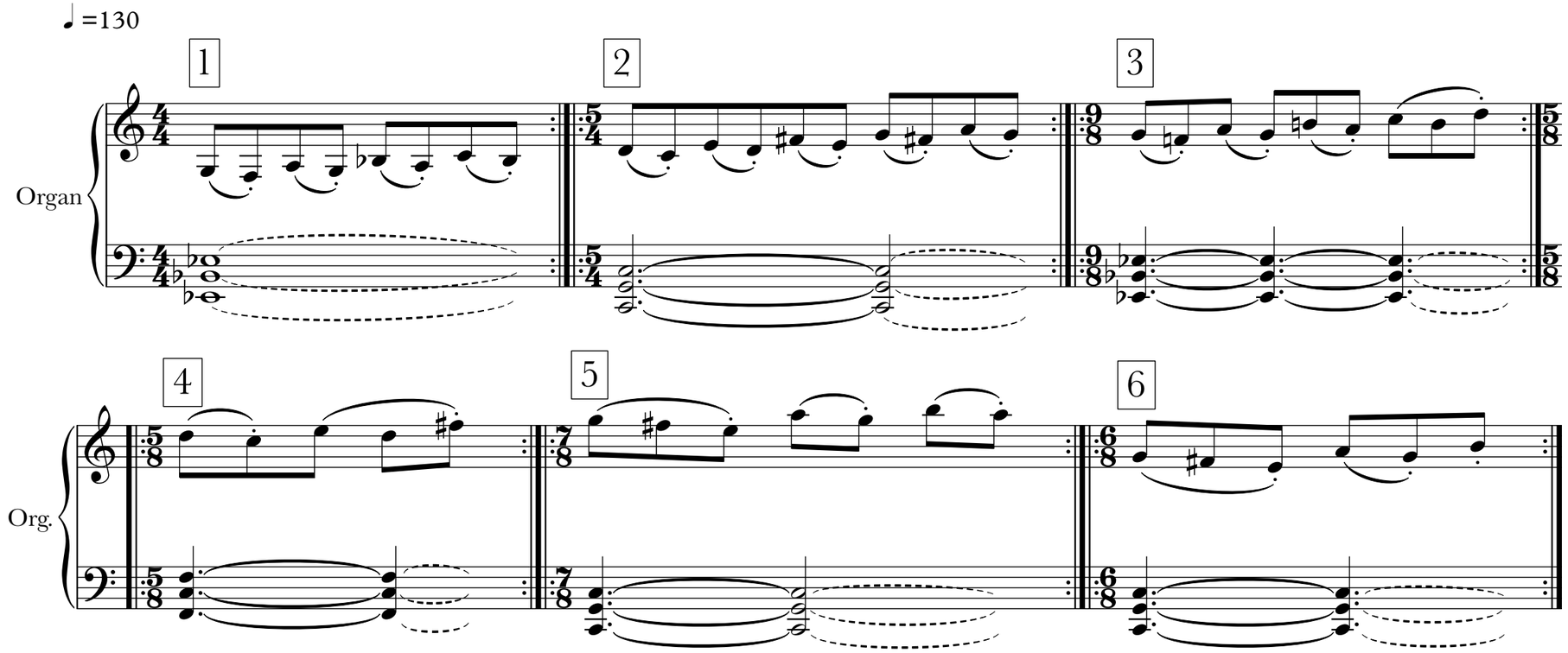
Organ:

Play the flying route of Brachycera (fly) according to the picture. The sound is buzzing and quiet.
Note that sometimes the fly lands on a surface – then no sounds are heard.

Duration: 1–3 minutes



8. Sammalet



Organ:
Play the whole piece (at least) twice. Repeat each figure as many times as you want, continue always in tempo and attacca to the next figure. The duration of the chords can be chosen freely. The first time you play the piece: continue in order 1, 2, 3, 4, 5, 6. The second time you play: choose a free order but start from the first figure. End the piece by playing only the treble clef figure, then skip some of the notes in the figure in order to make the figure sparser, keep the tempo. Choose dynamics freely. The sound could be described as soft, round and muddy/dark.

Musician 1 & Musician 2:
Play the treble clef figures with organ (sharing the instrument) or midi keyboard. Start by joining the playing of a figure chosen by the organist, and when the organist changes the figure keep the original figure for some time. After that the figures can be chosen freely, but Musician 1 and Musician 2 should play different figures.

Duration: 3-5 minutes

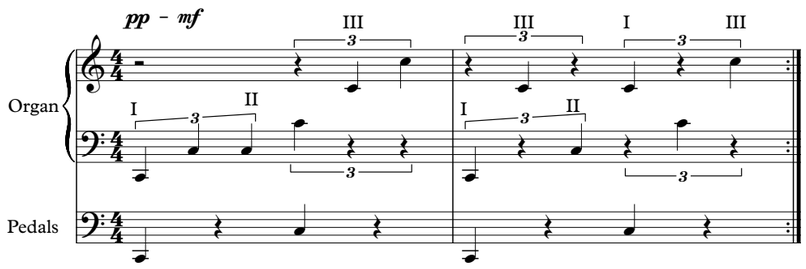
9. Nilviäiset: Kotilot

Organ:
Play the figures in free order. Each figure can be repeated as many times as wanted. You can continue to the next figure or the repetition of a figure attacca or have pauses in between. Try different tempos.

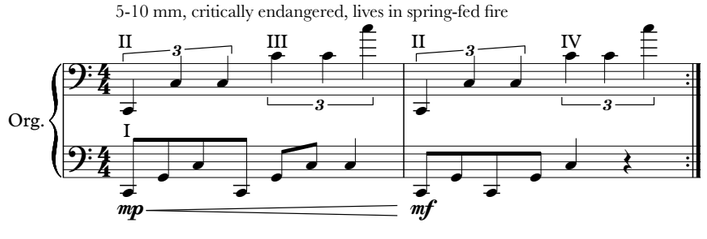
Musician 2 (computer):
add reversed reverb and loop the sound.

Duration: 5-7 minutes

Pulleasilokotilo:
6-7mm, critacally endangered, lives in fen (mineral-rich wetland)



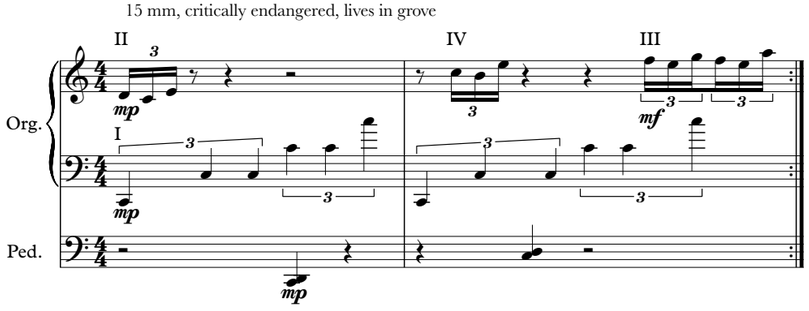
Kalkkitorvilokotilo:
5-10 mm, critically endangered, lives in spring-fed fire



Nystysiruetana:
1,5-2 cm, vulnerable, lives in wet grove



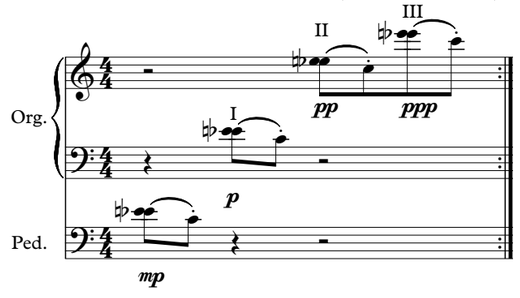
Idänsulkukotilo:
15 mm, critically endangered, lives in grove



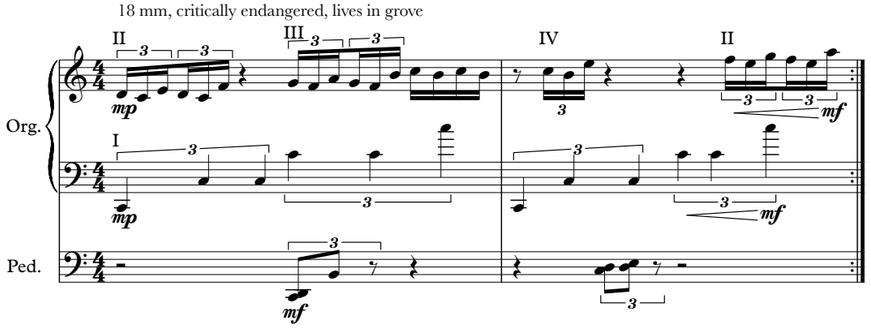
Suorasuusulkukotilo:
12-13 mm, vulnerable, lives in grove



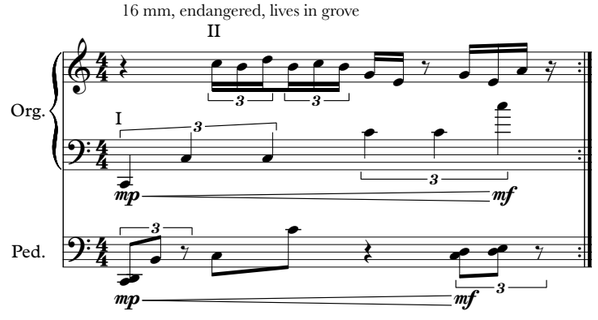
Kalkkisiemenkotilo:
1-2 mm, vulnerable, lives in fen (mineral-rich wetland)



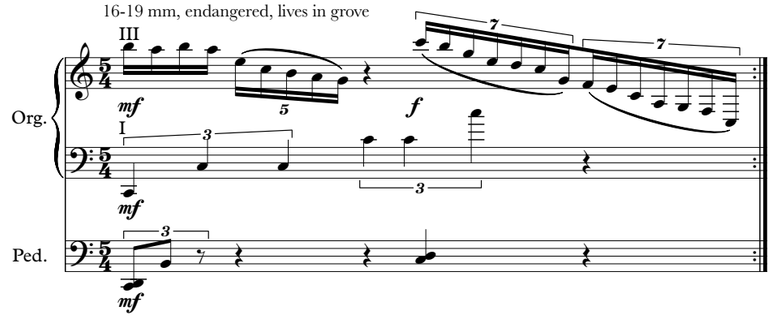
Isosulkukotilo:
18 mm, critically endangered, lives in grove



Hienouurresulkukotilo:
16 mm, endangered, lives in grove



Harmaasulkukotilo:
16-19 mm, endangered, lives in grove



Ahmattikotilo:
8-11 mm, endangered, lives in grove



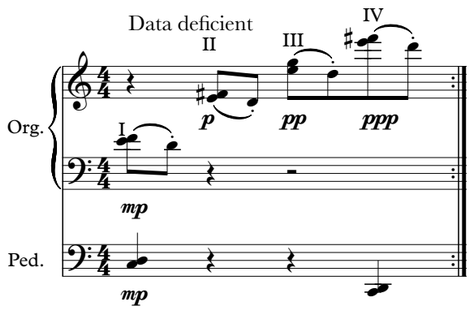
Soukkasulkukotilo:
7.5-9 mm, endangered, lives in grove



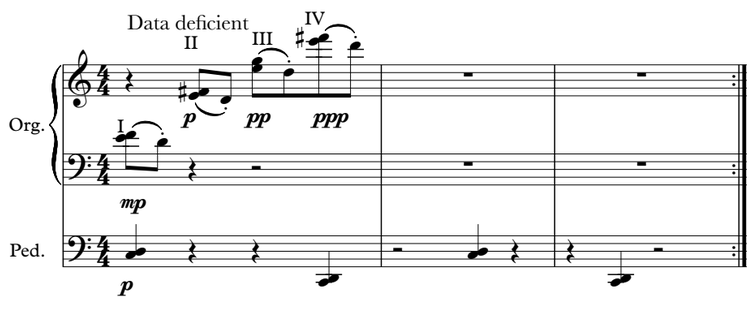
Litteäkristallikotilo:
2.2-2.6 mm, vulnerable, lives in grove



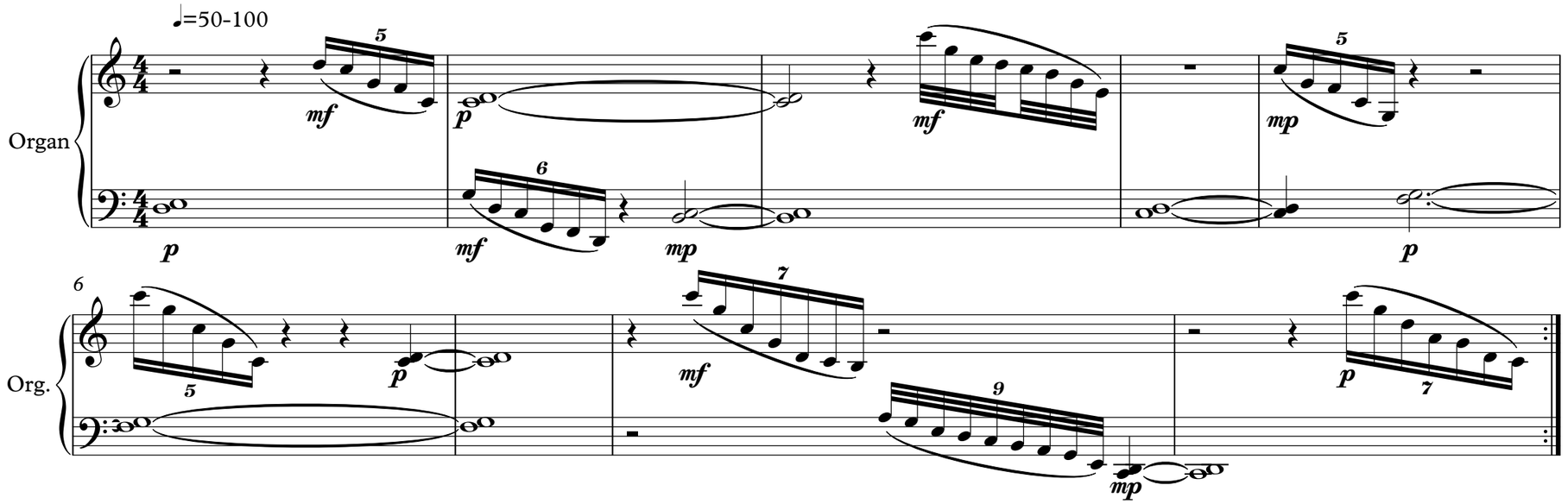
Data deficient



Data deficient



10. Simpukat



Organ:
Start by playing just the long notes, repeat at least five times in slow and rubato tempo. Then add gradually the faster passages to it - start by adding first just parts of them and then slowly all of them. Experiment with the organ stops and tempos, try different combinations to get different colors. You can also add your own developments to the given figures. The overall atmosphere should be like in a river: sometimes moving fast and sometimes slowly.

Musician 2 (computer):
use looping, delay and reverb to create a soft and evolving soundscape.

Duration: 4-6 minutes

11. Kolmisukahäntäiset

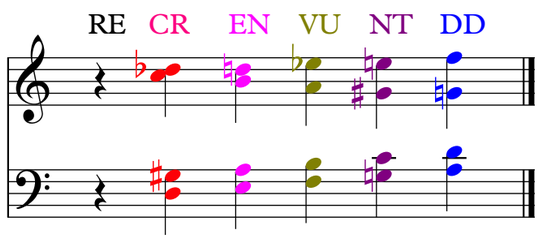
Look at the line and memorize it, then begin to move towards another instrument and interpret what you remember with a shaker.

Rantasiimahäntä



12. Nivelkärsäiset

EN	B1ab(iii) +2ab(iii)	Mlt	S	S	NA	4
DD		Sr, Mk h			NE	8
DD		Sr	?	?	CR	8
EN	B1ab(iii,iv) +2ab(iii,iv)	Mk h, In	N	N	EN	
EN	B1ab(ii,iii) +2ab(iii,iii)	Rjl	?	Vr	VU	4
VU	B1ab(i,ii,iii) +2ab(i,ii,iii); D2	Rih	Ku	Ku	VU	
DD		Sr			DD	
VU	B1ab(i,ii,iii) +2ab(i,ii,iii); D2	Ip, Ml	S	S	VU	
DD		Sr			DD	
VU	D2	Mlt, Iu	N	N, Mp	VU	
DD		Ip			NE	8
DD		Mk			NE	8
DD		Mk, Ip			NE	8
DD		Ip			DD	
DD		I			NE	8
VU	D2	Mlt	?	?	VU	
EN	B1ab(iii) +2ab(iii)	Rih	N	N	EN	
NT	D2	Rih, Mk h	N	N, R	VU	4
VU	B1ab(iii) +2ab(iii)	In	N	N	VU	
NT	D2	I h, Km	S	M	NT	
RE		In	N		RE	



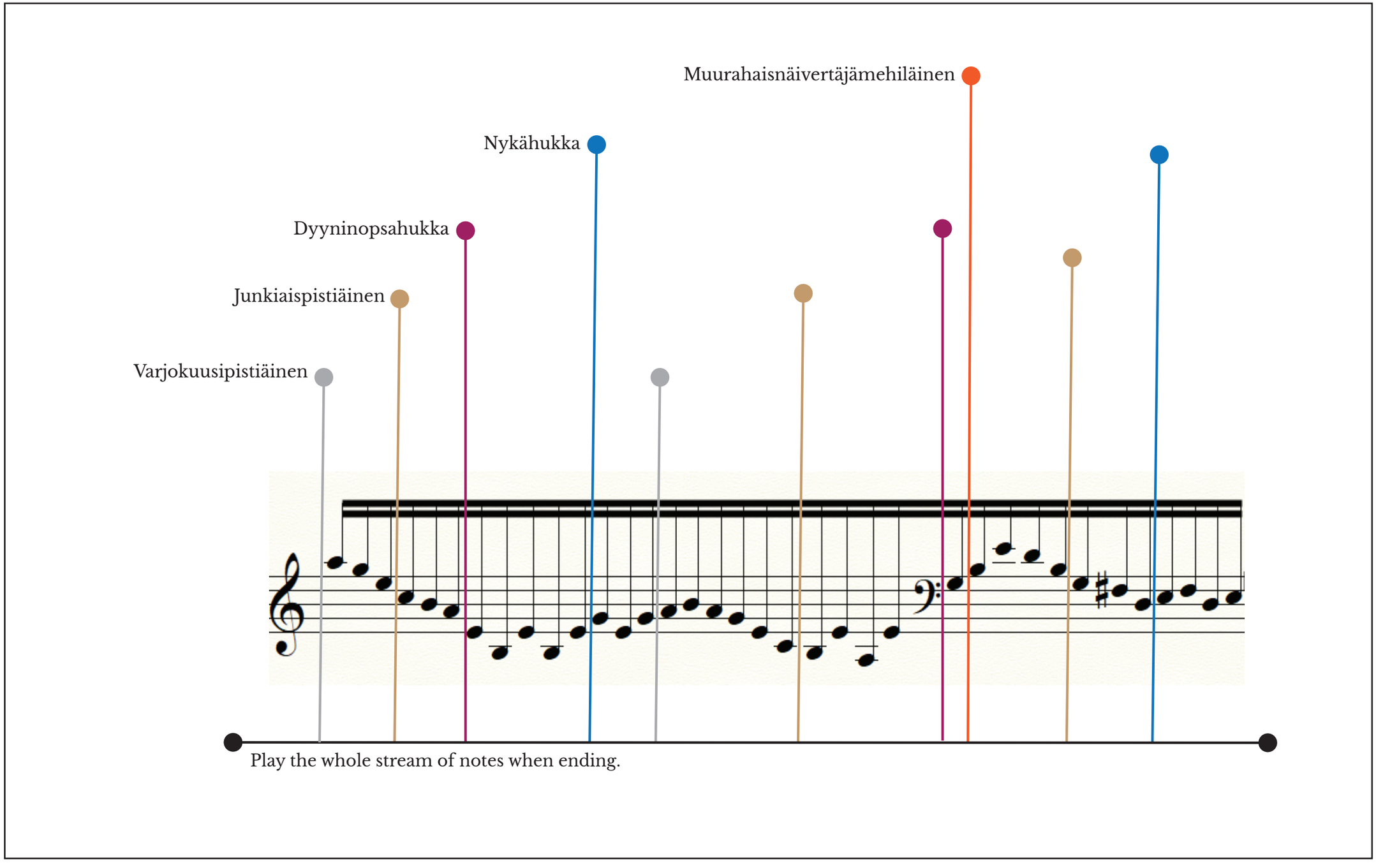
VU	D2	Sn	O, Vr	O, Vr	VU	
NT	B2ab(iii)	Vj	Vr, Kh	Vr, Kh	NT	
EN	B1ab(i,ii,iii) +2ab(i,ii,iii)	Mk h	R	R	EN	
CR	B1ab(i,ii,iii) +2ab(i,ii,iii)	Mk h	N, R	N, R	CR	
EN	B1ab(i,ii,iii,iv)+2ab(i,ii,iii,iv)	In	R	N	NA	4
EN	B1ab(i,ii,iii) +2ab(i,ii,iii)	Mk h	N, R	N, R	EN	
NT	D2	Ris, Rih	S	S	NT	
NT	D2	Rjs, In	R	N	NA	4
VU	B1ab(i,ii,iii) +2ab(i,ii,iii)	Ip	Vr, R	Vr, R	VU	
NT	D2	In	S	S	NT	
VU	D2	I, Io	S	S		
VU	D2	Sr	S	S	NA	4
VU	B1ab(i,ii,iii) +2ab(i,ii,iii)	Ml	Mp	Mp	VU	
EN	B1ab(i,ii,iii) +2ab(i,ii,iii)	Mk h	N, R	N, R	EN	
DD		Mkt, Rj			VU	4
NT	D2	Mk h, In	N	R	NT	
VU	B2ab(iii)	Mk p	Mk, Ml	Mk, Ml	VU	
RE		M p	Mk, Ml		RE	

Accordion/Organ:
Play the chords rhythmically at the same time as Musician 2 reads the text.
When there is a break in the reading there shouldn't be no sound played.

Musician 2:
Read the text out loud. Try to synchronize with the accordion/organ.

13. Pistiäiset

The stream of notes are divided in different groups that should be repeated 10s". You can layer the same species phrases forming polymetric patterns. Tempo should be fast.



Play the whole stream of notes when ending.

14. Kalat

Diatonic clusters:

Scale: .....D,E,F,G,A,Bb,C,D.....

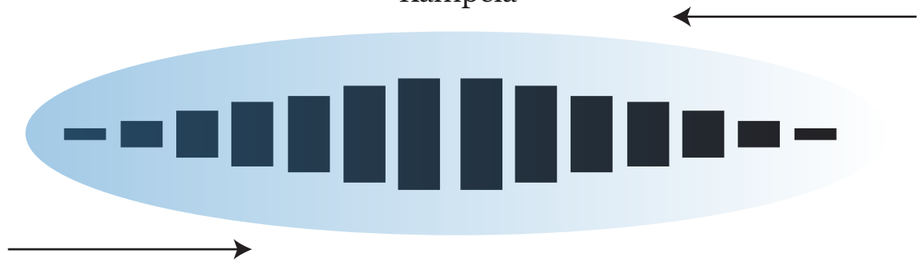
Scale: .....F#,G#,A,B,C#,D#,E,F#...

Single note

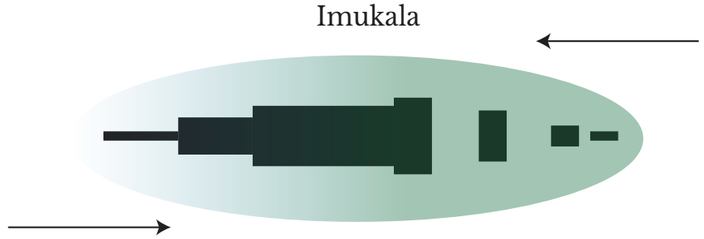
Large cluster

Interpret blocks that represents a cluster. Each fish can be played in both directions. Colors define the scale.
Clusters can be formed in any range. It is up to musician to decide.
Duration 2-3 minutes.

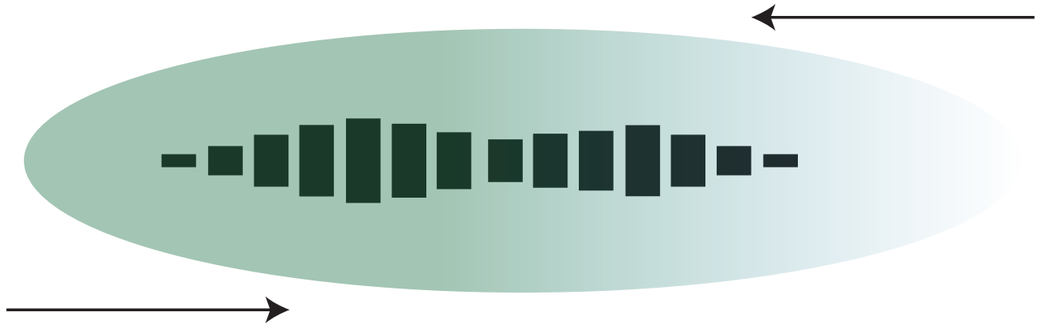
Kampela



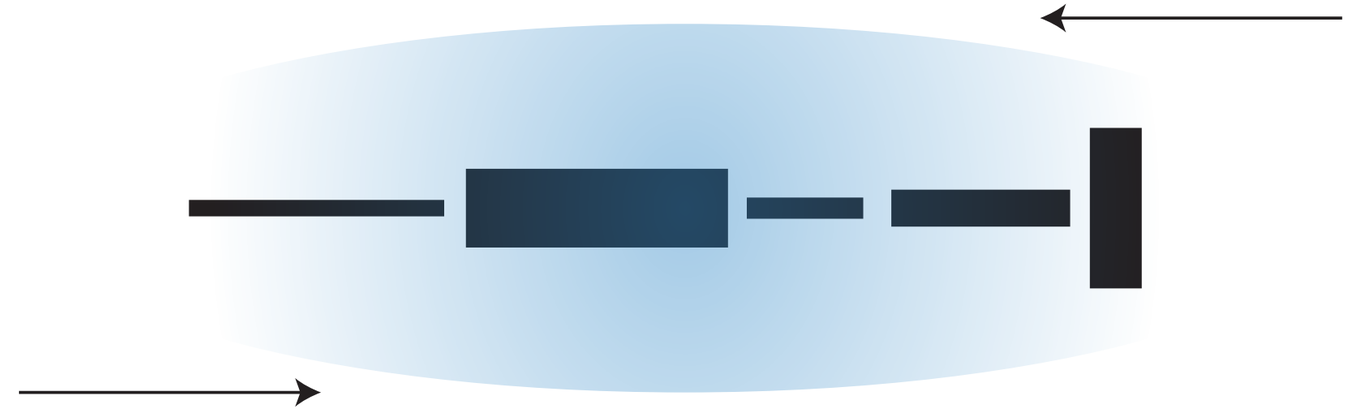
Imukala



Planktonsiika



Sinisampi



15. Putkilokasvit

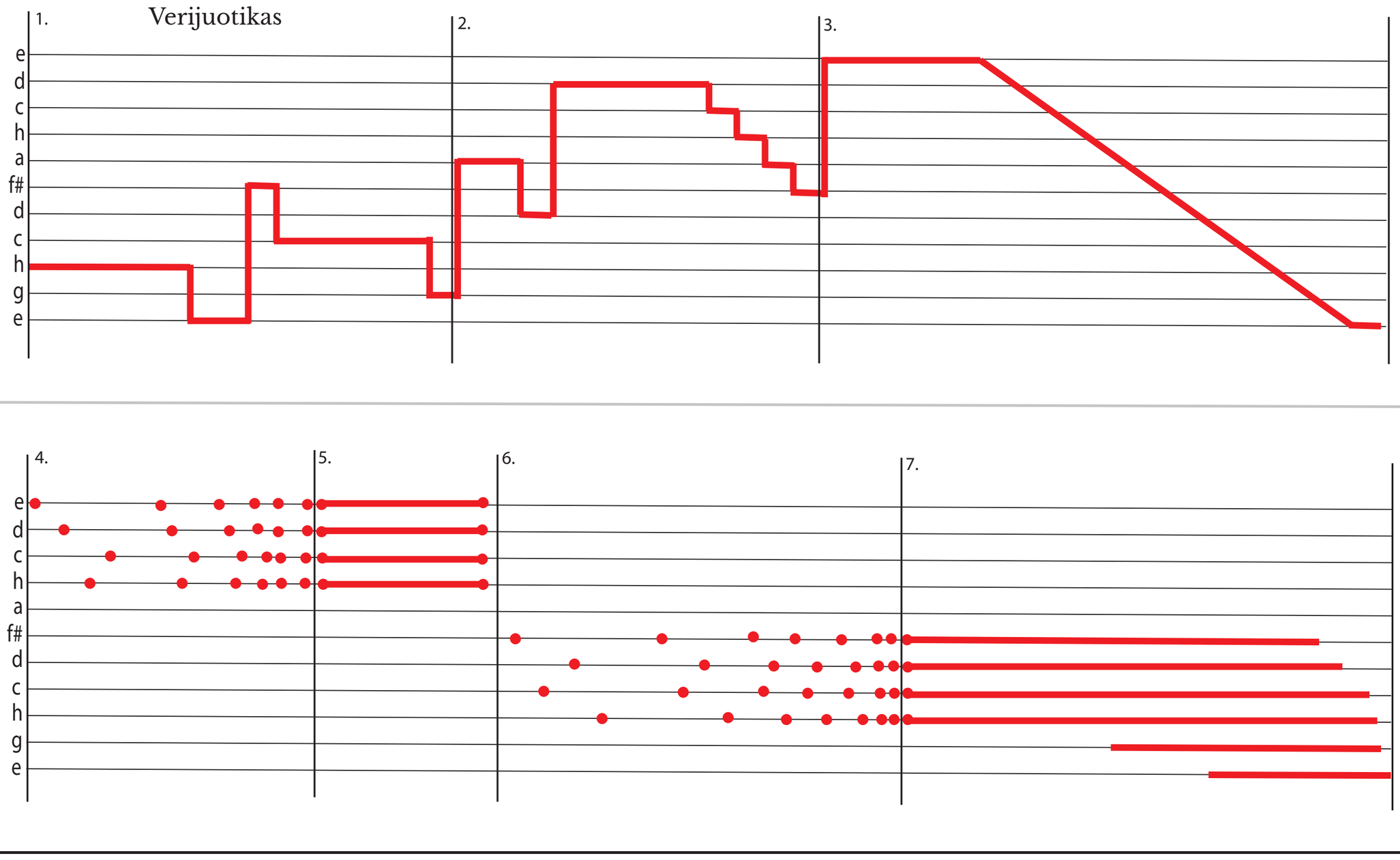
Begin to play notes and follow the words.
Pitch can be altered (low - high)
Notes can be long or short.
The arrow will give you the right reading direction.

→ *Lehtoukonhattu, idänverijuuri, isoauringonkukka, hoikkarölli, kääpiölauhio, kartioakankaali,*
sykeröpoimulehti, laskospoimulehti, pyöröpoimulehti, tylppähammaspoimulehti, upossarpio, ←
→ *ruijanruoholaukka, rohtorasti, ketonukki, alppivuokko, harmaakissankäpälä, ahokissankäpälä,*
ruijankissankäpälä, kaljukissankäpälä, isokissankäpälä, peltosauramo, pohjanmasmalo, ←
→ *idänmasmalo, lapinhilpi, lehtotakiainen, pikkupohjansorsimo, norjanarho, niittylaukkaneilikka,*
itämerenlaukkaneilikka, siroarnikki, perämerenketomaruna, lehtotaponlehti, terhi, värimaratti, ←
→ *serpentiinirauninoinen, seinärauninoinen, kalkkitummarauninoinen, imeläkurjenherne, ruskokaisla,*
hyvänheikinsavikka, litteäkaisla, ruotsinpihlaja, pohjannoidanlukko, suikeanoidanlukko, ←
→ *ketonoidanlukko, saunionoidanlukko, ahonoidanlukko, pikkunoidanlukko, lehtonoidanlukko,*
niittyräpelö, lehtokattara, ruiskattara, peltorusojuuri, rantakaura, neidonkenkä, pellavatankio, ←
→ *hirvenkello, lapinkissankello, tunturikissankello, kiirunankello, metsälitukka, lehtolitukka,*
rantalitukka, niittyluhtalitukka, hetesara, röyhysara, hietikkosara, vienansara, mustasara, ←
→ *sysisara, mykerösara, kevätsara, revonsara, ristosara, hentosara, itämerensara, nokisara,*
varvassara, somersara, patukkasara, lettosara, hostinsara, velttosara, kuusamonnokkasara, ←
→ *etelännokkasara, käyräsara, sukassara, vuorisara, tunturisarake, räpyläsara, vihnesara,*
lähdesara, jalkasara, kirppusara, hajasara. kaislasara, vankkasara, kalliosara, kuusamonsarake, ←
→ *lettohernesara, ketunsara, idänkurho, ketokurho, liekovarpio, vesihilpi, pikkusappi, miekkavalkku,*
punavalkku, tunturihärkin Kaavin serpentiinirotu, tunturihärkin Keski-lapin serpentiinirodut, ←
→ *kainuunnurmihärkki, tahmahärkki, kellohärkki, tunturiorho, lapinnädän serpentiinityypit,*
kanganssarjatalvikki, hajuheinä, isotaarna, siperiankärhö, pussikämmekkä, hentokatkero ←

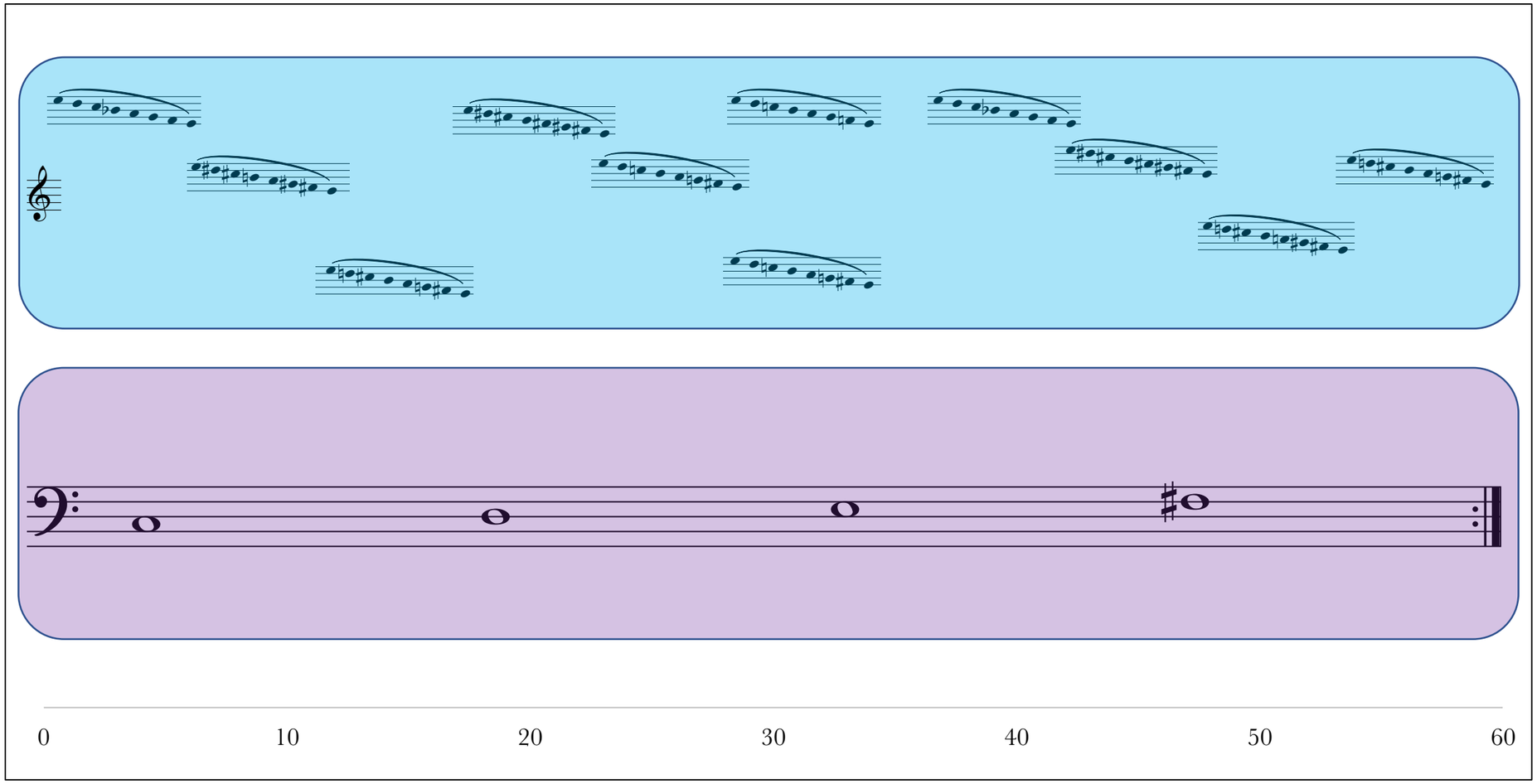
Live-electronics should be activated to play slow pitch shifted delay [major second up].

16. Nivelmadot

Follow the line in each section and play given notes. Register can be low or high, but the relations between notes have to be correct.
You can choose in which order you play the numbered sections. You may also repeat a section.
You may change the tempo in each section.



17. Päiväkorennot



Organ:
Manuals: Use all the manuals and play short bursts with the scales downwards or upwards. Repeat each scale 1-5 times.
Tempo and rhythm are free. Play with soft dynamics.
Pedals: play the upwards scale with longer notes. Repeat the scale as many times as you feel like. Play with soft dynamics.

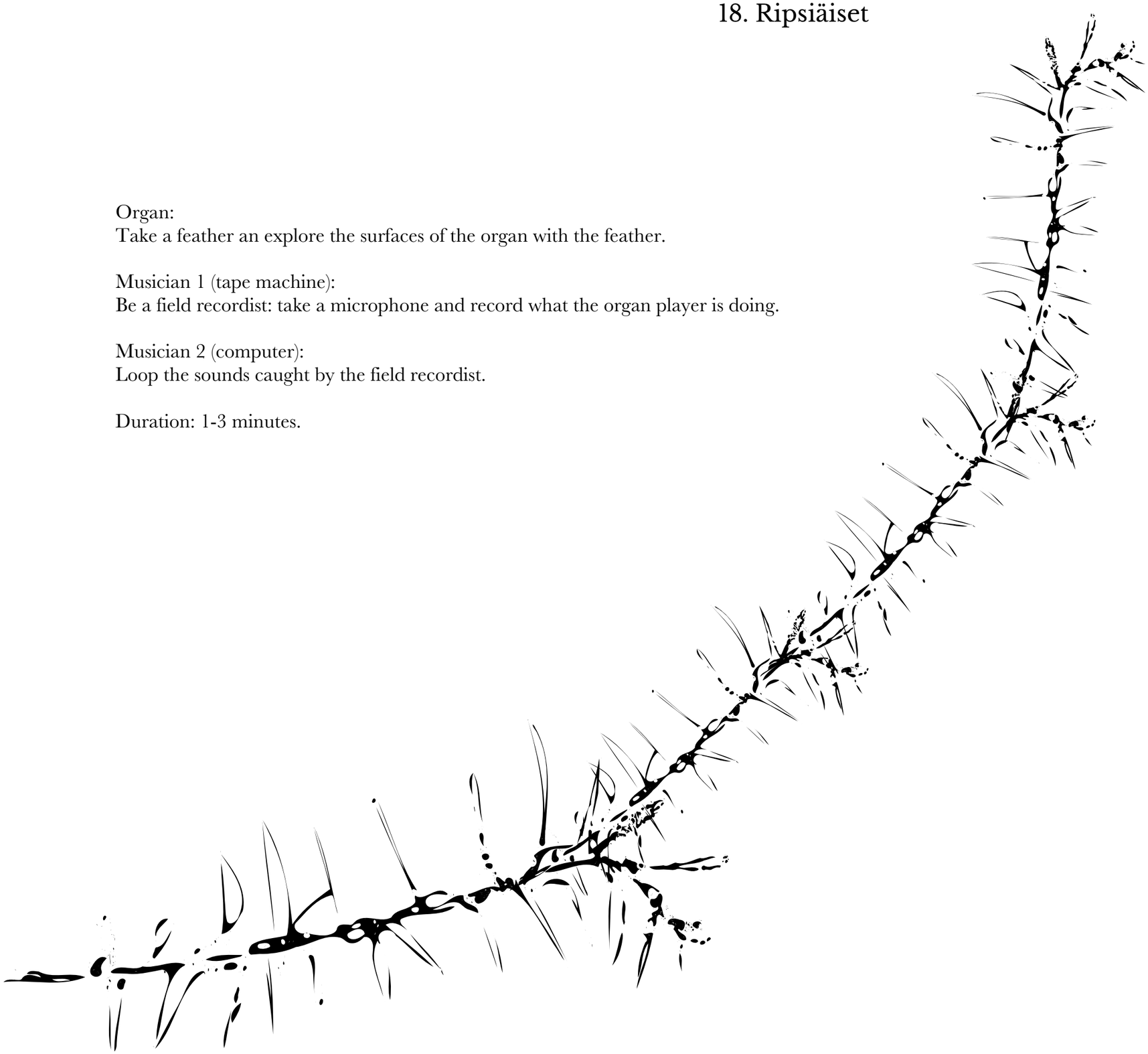
18. Ripsiäiset

Organ:
Take a feather an explore the surfaces of the organ with the feather.

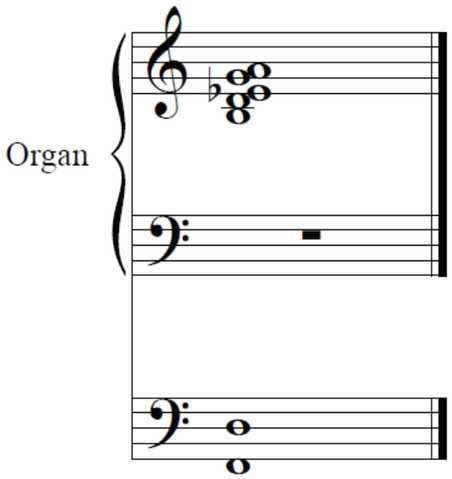
Musician 1 (tape machine):
Be a field recordist: take a microphone and record what the organ player is doing.

Musician 2 (computer):
Loop the sounds caught by the field recordist.

Duration: 1-3 minutes.



19. Vesiperhoset



Play rhythms with the given chord.
Thickness of the blocks are related to registers / sound timbre.
You can freely choose the tempo and loop different boxes as long as you like.

Siviäsirvikäs



Lettorysäkäs



Pikkulipporysäkäs



Köngäspalkonen



Merisarvekas



Kaamossirvikäs



20. Matelijat ja sammakkoeläimet

Kangaskäärme

Organ:
Take all the organ stops off. Move like a snake: first press down gradually your arm and then continue the movement with pressing down the fingers one at a time.

Musician 1 (tape machine):
Be a field recordist: take a microphone and record what the organ player is doing.

Musician 2 (computer):
Loop the sounds caught by the field recordist. Manipulate the loops and the live sound: with reversing and adding reverb.

Duration: 1-4 minutes.

Rupilisko

Organ:
Leave one manual with organ stops on and others without.
Move like a newt: alter the movement between
(1) short “swimming burst” with wavy motion and
(2) floating: lift your arms with flowing slow movement.

Musician 2 (computer):
Record and loop the sound of the organist. Manipulate the loops and the live sound: with reversing and adding reverb.

Duration: 1-4 minutes.

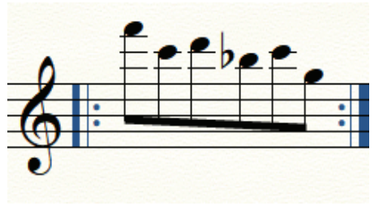
21. Sienet

Begin with Lehvämustesieni with the tempo you like. Remember you have to stick with that tempo! You can loop every mushroom (5-10s) and then move fowards or backwards, but read mushrooms from left to right. You can also skip one mushrooms if you like and the move backwards and play the one you skipped.

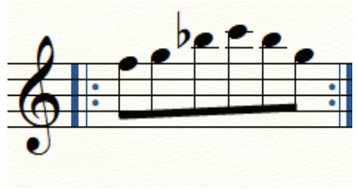
Lehvämustesieni



Kalvasmustesieni



Karikemustesieni



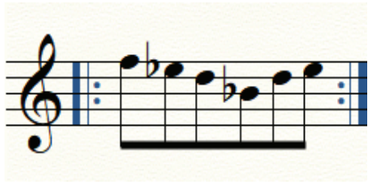
Purppuramustesieni



Kaunomustesieni



Nöyhtämustesieni



Lehtomustesieni



Säiemustesieni



Hilsemustesieni



Täplämustesieni



Saramustesieni



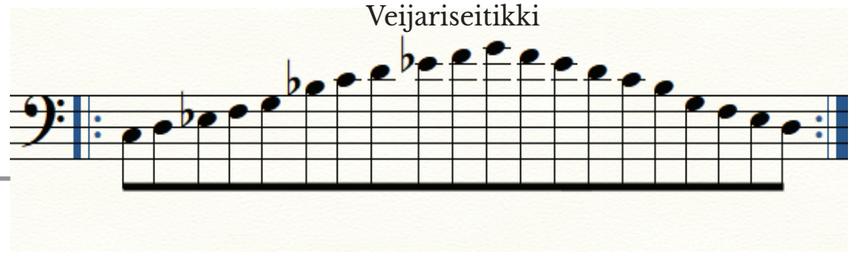
Hakamustesieni



Hämyseitikki



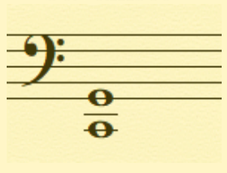
Veijariseitikki



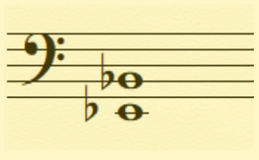
Everytime you move to another mushroom change bass notes.

Itiöt

Suvulliset



Suvuttomat

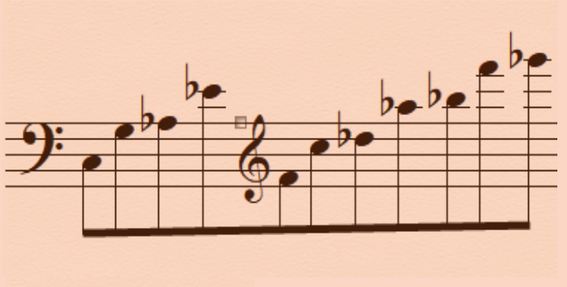


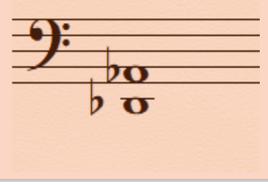
ENDING

Sienirihmasto

You can play the phrase fowards or backwards in any place.

You can't skip any notes.





22. Hämähäkkieläimet: Hämähäkit



Accordion:
Play the piece 5 times. Vary the tempo by doing accelerando or ritardando – the changes in the tempo can be either done suddenly or gradually.

Musician 2 (computer):
Add microtonal delay to the accordion. Freeze the sound occasionally.

Duration: 3-5 minutes

23. Sudenkorennot

You can play the numbered boxes in any order you like, as many times you like.

Viherukonkorento

● = 

original from left to right

● = 

reverse (from right to left)

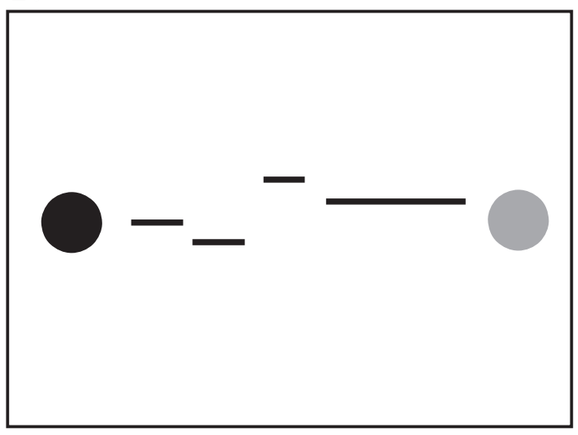
Kääpiötytönkorento

——— = major second trill

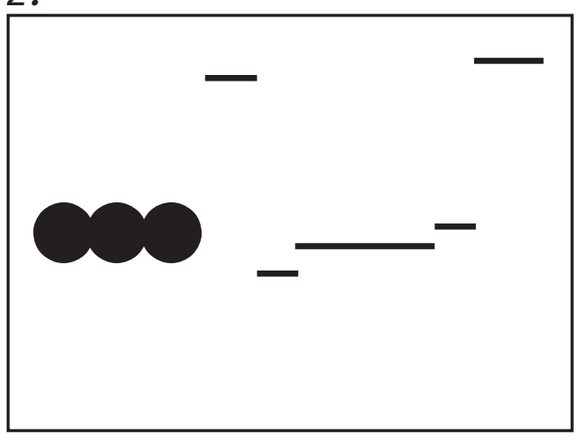
1.

high

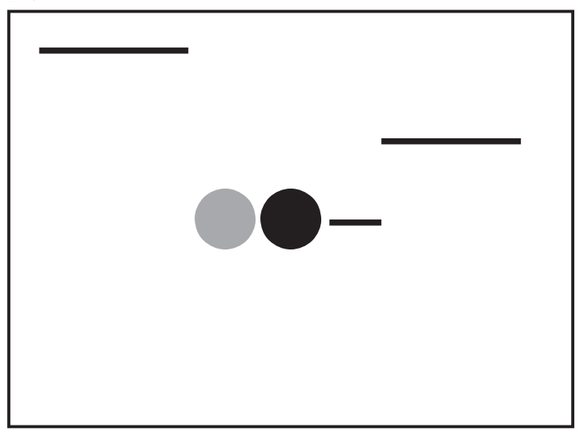
low



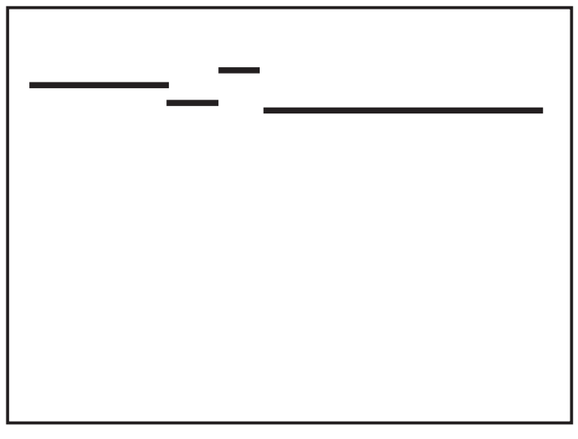
2.



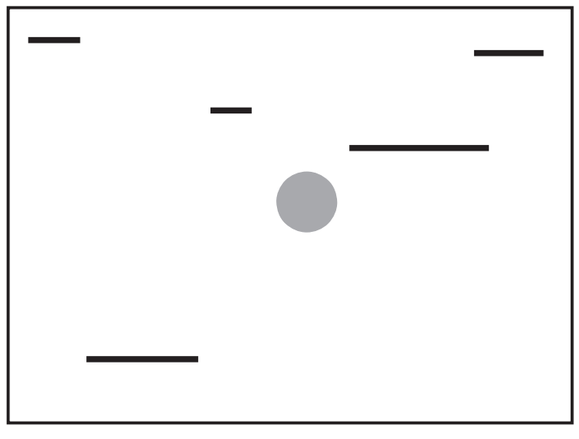
3.



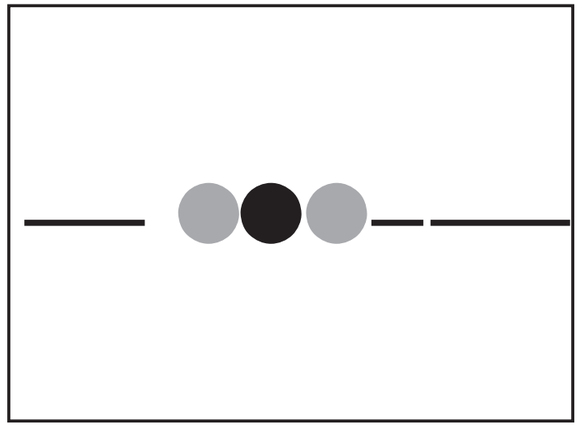
4.



5.



6.



24. Jäytiäiset

♩ = 60 rubato

Accordion

Accord.

6

12

18

24

gliss.

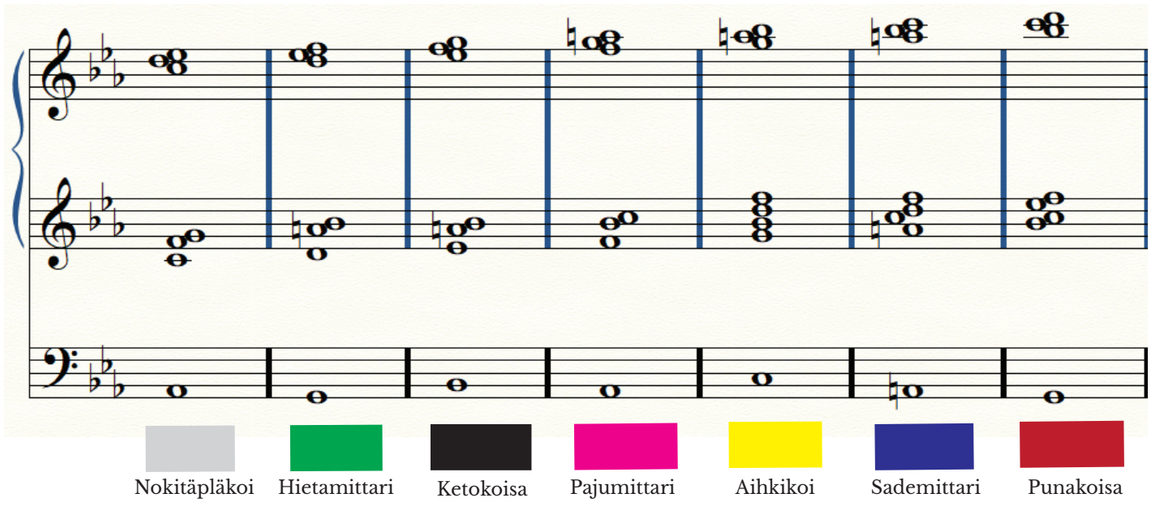
p mp p

mf mp

pp

air button

25. Perhoset


Nokitäpläkoi
Hietamittari
Ketokoisa
Pajumittari
Aihkikoi
Sademittari
Punakoisa


1min”
1min”
1min”
1min”

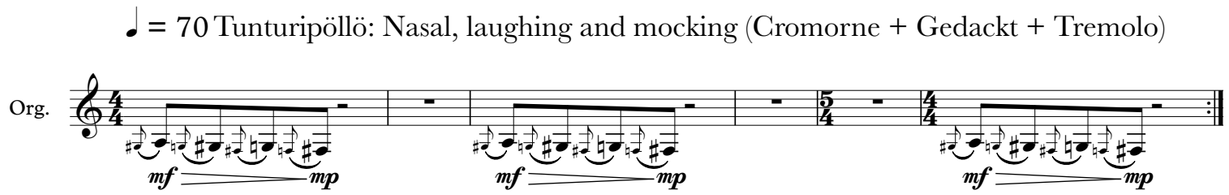
26. Linnut

Pöllöt 1

Organ:
Play the figure as many times as you feel like.

Musician 2 (computer):
Add reverb and loop the sound.

Duration: 1-5 minutes



Lintupillit

Organist, Musician 1 and Musician 2:
Play the bird whistle.
Walk in the space – organist walk to the accordion.
React to the other birds.

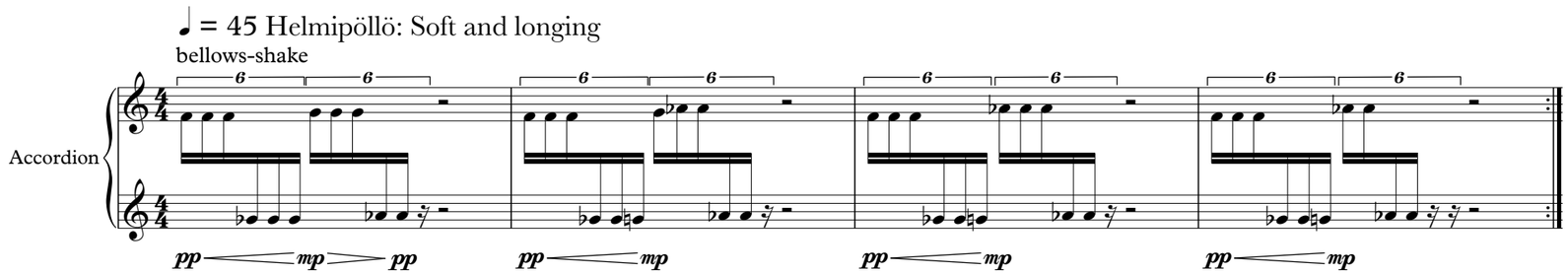
Duration: 0,5-3 minutes

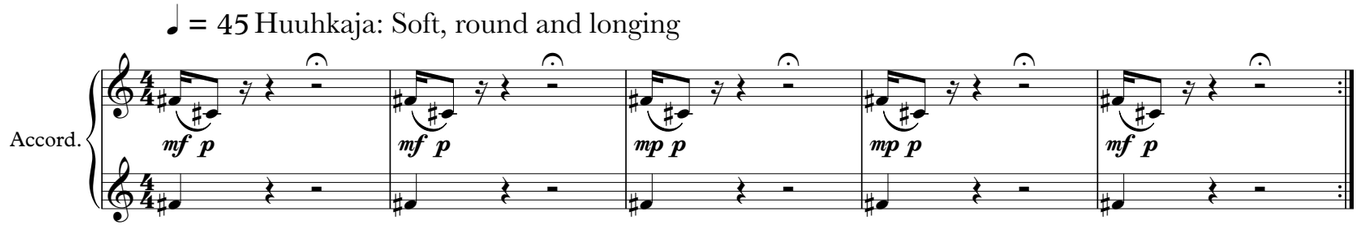
Pöllöt 2

Accordion:
Play each figure in free order
as many times as you feel like.

Musician 2 (computer):
Add reverb and loop the sound.
Blow the owl-whistle and improvise
with the accordionist.

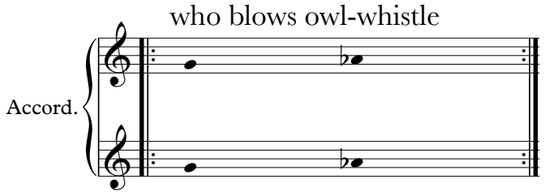
Duration: 2-5 minutes



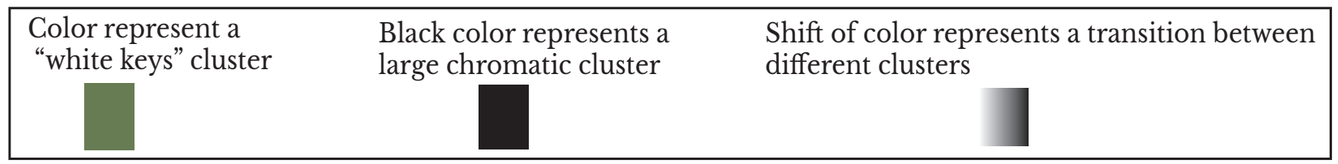




Pöllö-talk:
improvise with Musician 2
who blows owl-whistle



27. Jäkälät



Taigapiilojäkälä



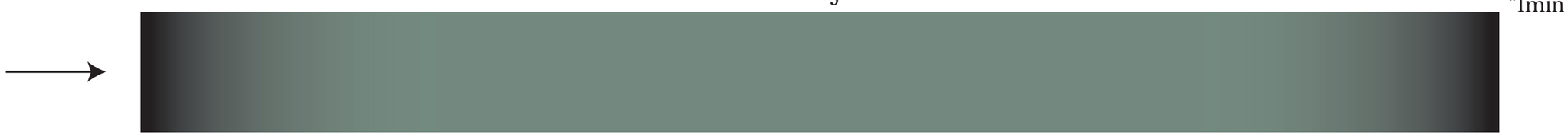
Sokkelojäkälä



Kalkkikeijunjäkälä



Kaarrejäkälä



Laattakiventiera



28. Tuhatjalkaiset

Accordion:

Think yourself as a hunting centipede:

1. Crawl with your both hand finger in the surface of the accordion, e. g. in the keys, bellows and behind the instrument.
2. When you find your prey, use the air button to create an intensifying breathing. Continue at the same time crawling.
3. Hit the bellows when you attack your prey!

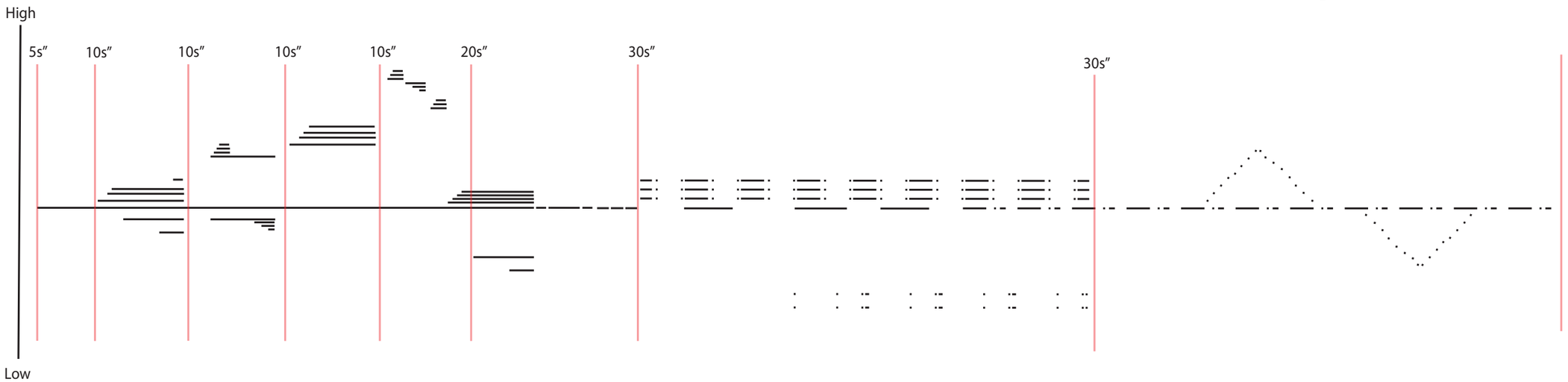
Duration: 0,5-1 minutes.

This hunting-episode can be repeated as many times as wanted and the duration of the scene can vary. This animal can be also played in between other species as a kind of interlude.

29. Kovakuoriaiset

Interpret lines, dots and figures in given time structure.

I Tunturihyrrä



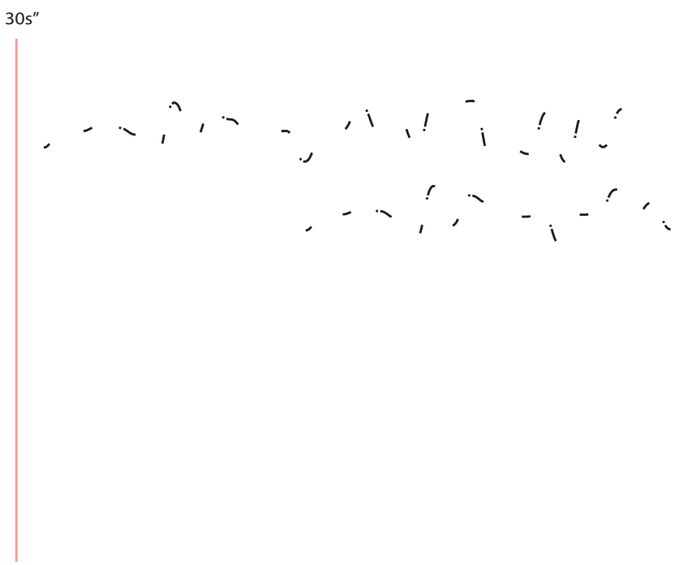
II Täplälantiainen

III Korukeräpallokas

IV Hämytaitosukeltaja



V Läiskäpiilopää



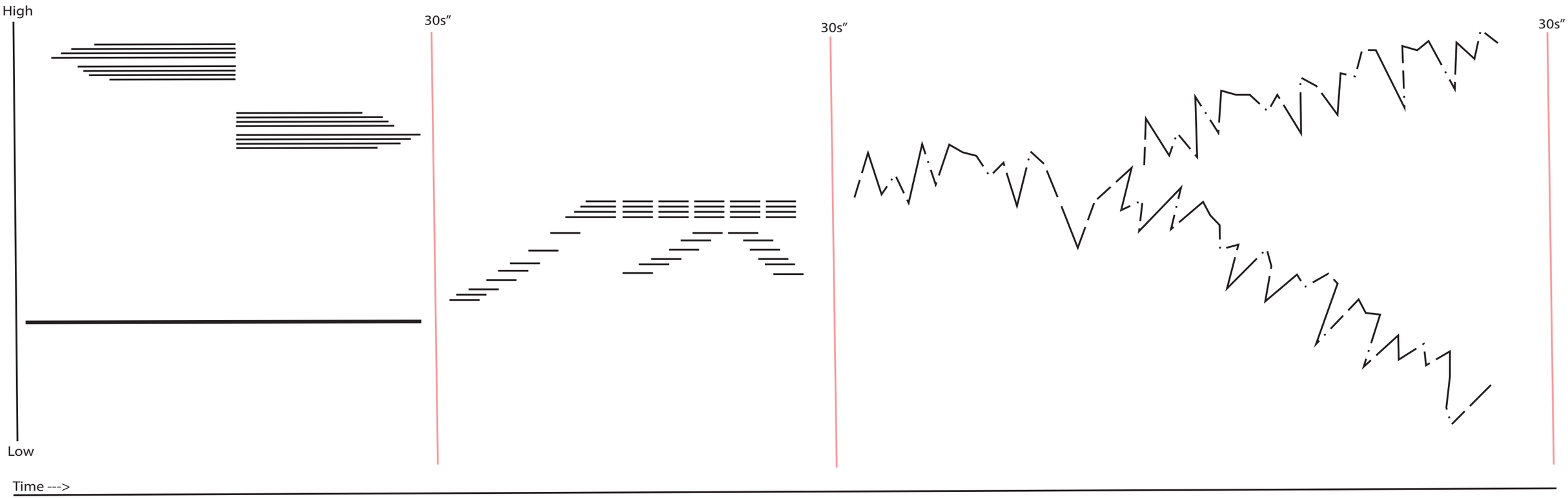
VI Viherkehnäkiitäjäinen



VII Marmorikuoriainen

VIII Viirurantusukeltaja

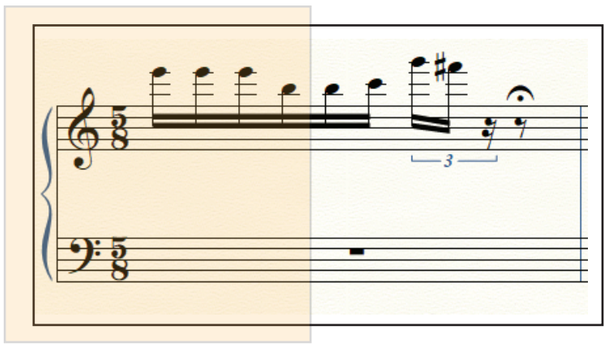
IX Tammikukkajäärä



30. Koskikorennot

You can begin in any box you like. Orange boxes can be looped over and over again, but when you play the whole phrase then you must move into the next box.

Capnia vidua



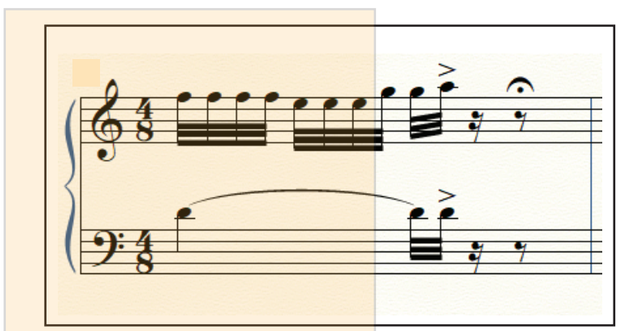
Jymykorri



Etelänkoipikorri



Vantaankorri



31. Kierresiipiset

A Use pencils/weights and make the following chords with organ in free tempo.

Walk to
the accordion,
take your time.

Organ

p

B Musician 2: take the pencils/weights away one at a time: synchronize the ending of the note to the new note by the accordion.

Org.

Ped.

⊓ and ∨ freely.

Accord.

p

mf

C

Org.

Ped.

p

p

Accord.

mp

* Erased pitches are highlighted with red color and cross notehead,
these pitches are not played - they aim to indicate what notes are taken away.

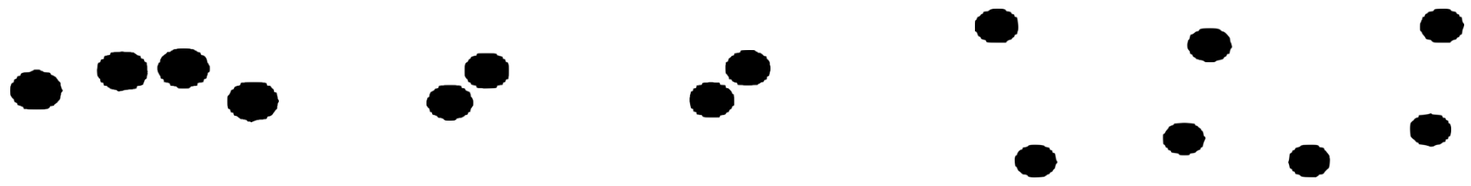
32. Nisäkkäät

Susi

Try to transform your hands to the pawn of a wolf.



With the new hands, move in the keys of organ like a wolf. Think to leave the following marks to snow.

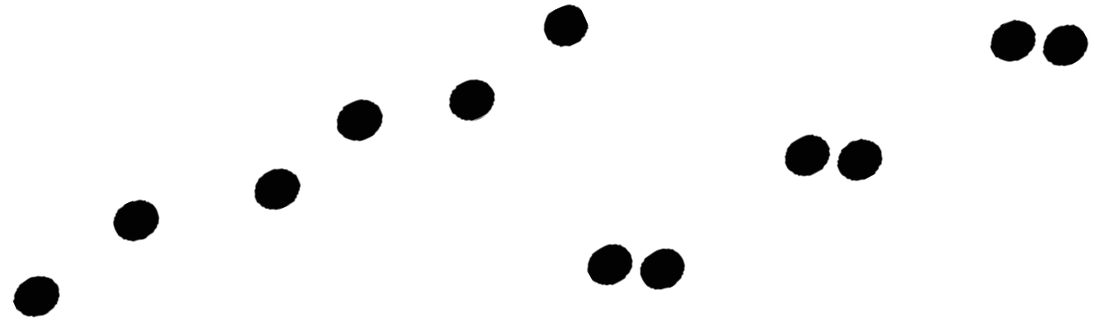


Ahma

Try to transform your hands to the pawn of a wolverine.



With the new hands, move in the keys of organ like a wolverine. Think to leave the following marks to snow.



Naali

Try to transform your hands to the pawn of an arctic fox.



With the new hands, move in the keys of organ like an arctic fox. Think to leave the following marks to snow.

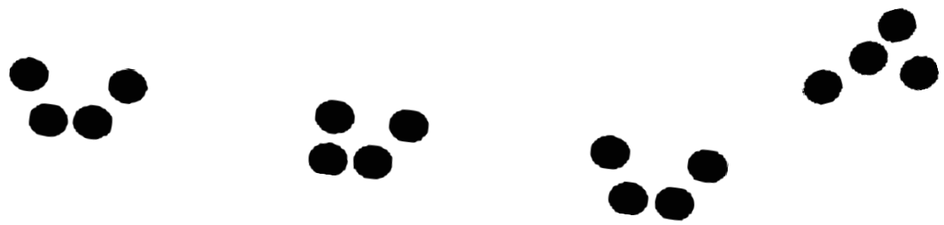


Hilleri

Try to transform your hands to the pawn of a polecat.

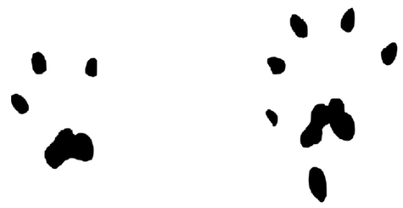


With the new hands, move in the keys of organ like a polecat. Think to leave the following marks to snow.



Liito-orava

Try to transform your hands to the pawns of a flying squirrel.



With the new hands, move in the keys of organ like a flying squirrel. Think to leave the following marks to snow.



Pikkulepakko

Organ:
Play each figure as many times you feel like,
you can also try different organ stops.
You can have pauses in between.

Musician 2 (computer):
With looping or live sound manipulation,
pitch shift the playing to very high and thin.

Duration: 2-5 minutes

