

Lauren Redhead
fishfossilfake

Goldsmiths
UNIVERSITY OF LONDON



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*image (previous page): fishfossilfake performance, showing (l-r)
Henry McPherson, Ellen Sargen, Amy Jolly, Alistair Zaldua, 9th
May 2025. Photograph: Daryl Feehely.*

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image: fishfossilfake performance, showing Amy Jolly and Alistair Zaldua, 9th May 2025. Photograph: Daryl Feehely.



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300 Word Statement

fishfossilfake is a 30-minute composition for ensemble and electronic sound, that combines graphic notation, instructions for improvisation, text notation and some stave-notated sections (such as an organum). The intention of this combination of notational approaches is to create music that may combine spontaneity and an experimental or environmental approach to sound with the management of a larger-scale musical structure. Poetically, the piece is a musical exploration of the mystical, mythical, uncharted and obscure world under the sea. The strange properties of this world have been gathered from medieval and earlier art, from discussions of sea animals in medieval and contemporary texts, and from recipes. This combination of source materials has been used to paint a picture of the undersea as uncanny, while also foregrounding issues of environmental change and human intervention in the lives of undersea creatures. This is further emphasised by the inclusion of these spoken texts both as sound and as notation in the music. Three animals have been chosen through which to explore this world, roughly corresponding to the three sections of the piece: the sea bass (who is fished, prepared, cooked and eaten); the four hundred year old shark (the Greenland shark, who has seen many changes in the ocean during her life); and the narwhal (who must be seen to be misunderstood, or perhaps believed). The musical ocean in which these animals exist is comprised of constant change, distortion, blurred repetition and development, creating the impression that nothing about these animals and the environment in which they live can be conclusively known. Sonically, this shifting and changing is achieved through the combination of notational approaches and compositional styles brought together in the piece, and their combination with electronic sound that is created from instrumental and field recordings that are re-combined and distorted throughout the piece.

Research Questions

Since this piece continues and extends creative practices using experimental forms of notation that underpin the majority of my compositional work, the research questions explored in this piece also demonstrate this overlap. It may be considered as an iteration of my compositional practice with graphic notation and text, as well as the integration of improvisation as a tool for composition. Therefore, the research questions explicitly explored in this piece relate to the combination of these ideas in a large-scale work intended for live performance:

- What methods of scoring might successfully integrate the combination of improvisation, graphic notation, stave notation, and electronic materials in live performance, with the aim of preserving spontaneity while maintaining the intended shape of the piece?
- How can the source materials used to inform the creation of text and images in the piece be used to concurrently foreground the compositional methods of the piece, and its thematic links to environmental change?

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image: fishfossilfake performance, showing Henry McPherson and Ellen Sargen, 9th May 2025. Photograph: Daryl Feehely.

Methods

The piece is composed in three sections, each of which broadly correspond to one of the terms in the title, and each of which is framed around an extractable composition.

The extractable pieces are:

- fish – [the sea bass](#) (text for performance)
- fossil – [the four hundred year old shark](#) (graphic score, with text for performance)
- fake – [the narwhal](#) (graphic score, with text for performance)

This piece extends compositional methods that were used in my previous pieces [the whale](#) (2020) and [the octopus](#) (2020), including the combination of text, graphic notation and scored notation, the combination of composition and improvisation, and the composition of extractable works. *fishfossilfake* extends these ways of working since the piece is scored for and released by live improvising performers, rather than combining improvised responses as fixed media in a studio-based process. This has further resulted in the necessity of the creation of multiple types of instruction-based and hybrid notations for the ensemble that enable the piece to be sustained over its 30 minutes duration, and effective transitions between different types of notation and performance.

The following 3 pages give an overview of the structure of the piece, its musical materials and the reference materials used to create it.

image: fishfossilfake performance, showing Pete Furniss, 9th May 2025. Photograph: Daryl Feehely.



Composition Overview

Section	Duration	Notes, descriptions and sources
section 1: fish section		
(fish)	0.00 -1.00	Fade in of electronic sound: Includes a granular version of a recording of a squeaky harmonium and some environmental sounds from a soundwalk undertaken on the island of San Servolo, Venice
(fish)	1.00 – 2.00	(Electronic sound continues) Musicians to pick out very sparse notes or phrase from the ‘fishfossilfake tunes’* score (each musician will only play 1-4 times during this minute) Quiet dynamics across ensemble and electronics. *An additional score created with notated and filtered versions of traditional and music hall tunes related to the sea.
(fish)	2.00 – 3.00	Drones: the musicians play one breath texture with different articulations. Electronic sound fades out.
recipe section	3.00 – 6.00	Text of recipes, with some ensemble sound. Recipes are instructions for ensemble playing (improvised).
(fish)	6.00 – 7.00	Ensemble regular rhythm with embellishments.
extractable piece: <i>the seabass</i>	7.00 – 10.00	Poem/text: <i>the seabass</i> Combined with a composed fixed media part in which environmental sound returns Ensemble play on the instruction: ‘sea bass’ with different suggestions and instructions of how to play

Composition Overview

Section 2: fossil section		
(fossil)	10.00 – 11.00	Electronic interlude: introducing percussion sounds
(fossil)	11.00 – 12.00	Entrance of instrumental sounds, with multiple attacks; electronic sound continues
(fossil)	12.00 – 13.00	Electronic sounds fade out 'Whispering' emerges from ensemble and electronics
(fossil)	13.00 – 15.00	Fully composed section for ensemble reflecting the percussion sounds from 10:00
(fossil)	15.00 – 16.00	Taxonomy of fish fossils, with pointillist sound and spoken text
shark poem	16.00 – 17.00	Shark poem with electronic sound
extractable piece: <i>the four hundred year old shark</i>	17.00 – 20.00	<p>Graphic score materials and composed electronic sounds.</p> <p>Bibliography of source materials used to create the score and text:</p> <ul style="list-style-type: none">• Constantino, G. (12August 2014). 'Sharks were once called sea-dogs, and other little-known facts'. <i>Smithsonian Magazine</i>. https://www.smithsonianmag.com/science-nature/sharks-were-once-called-sea-dogs-and-other-little-known-facts-180952320/• Fioravanti, T., Maio, N., Psomadakis, P. N., Manzotti, S., Gigante, A. P., Splendiani, A., Bottaro, M., & Caputo Barucchi, V. (2023). 'The sawfish (Rhinopristiformes, Pristidae) rostrum displayed in the "Basilica Santuario del Carmine Maggiore" in Naples, Italy: A long story of legends and taxonomic errors'. <i>Contributions to Zoology</i>. 92.5. 431-450. https://doi.org/10.1163/18759866-bja10048• Image: The rostrum of a sawfish affixed to the wall in the church of Santa Maria del Carmine in Naples, Italy.• Learn, J. R. (22 May 2018). 'Historical Art Paints a Picture of Past Shark Abundance'. <i>Hakai Magazine</i>. https://hakaimagazine.com/features/historical-art-paints-picture-past-shark-abundance/• Litman-Navarro, K. (6 September 2017). 'The Delicate Art of Illustrating Ancient Sharks.' <i>Atlas Obscura</i>. https://www.atlasobscura.com/articles/shark-illustrations-aaron-john-gregory• Living Sharks Museum. (n.d.) 'Commercial Uses of Sharks'. <i>livingsharks.com</i>. https://www.livingsharks.org/sharkproducts• Manuscript image from 'History and True Novel of the Duke of Lyon de Bourges'• Manuscript image: Paris, Bibliothèque Sainte-Geneviève, MS 98• Rob Stewart Sharkwater Foundation. (2022) 'Warning: Contains Sharks'. <i>robstewartsharkwaterfoundation.org</i>. https://www.robstewartsharkwaterfoundation.org/articles/products-containing-sharks• Roberday, F.* (1660) <i>Fuges, et Caprices, a Quartre Parties Mises en Partition pour l'Orgue</i>. Paris.• Zammit-Maempel, G. (1975) 'Fossil Sharks' Teeth: A Medieval Safeguard Against Poisoning'. <i>Melita Historica</i>. 6. 391-410. <p>*Francois Roberday was born in 1624; also the year of birth of the four hundred year old shark at the time of the piece's composition.</p>

Composition Overview

Section 3: fake section		
(fake)	20.00 – 21.00	Composed electronic interlude, employing distortions of pervious electronic material
(fake)	21.00 – 23.00	Electronics: long tone and drone section. Electronics to mimic this by fading in and out in waves.
(fake)	23.00 – 25.00	Organum: fully composed scored section for ensemble.
narwhal text	25.00 – 26.00	Narwhal poem begins.
extractable piece: <i>the narwhal</i>	26.00 – 29.00	<p>Graphic score materials and composed electronic sounds.</p> <p>Bibliography of source materials used to create the score and text:</p> <ul style="list-style-type: none">• Daston, L., and K. Park. (1998). Wonders and the Order of Nature 1150–1750. Princeton, New Jersey: Zone Books.• Duffin, Christopher J. (January 2017). "'Fish', fossil and fake: medicinal unicorn horn". Geological Society, London, Special Publications. 452 (1): 211–259.• McLeish, T. (1 April 2012). 'Ancient and Exaggerated: Narwhals through History'. <i>The Narwhal's Left Tooth: Reflections on wildlife and natural history</i>. https://narwhalslefttooth.blogspot.com/2012/04/ancient-and-exaggerated-narwhals.html [blogpost].• Narwhal Research. (2025). 'THE NARWHAL: Extraordinary Unicorn of the Sea'. <i>narwhal.org</i>. https://www.narwhal.org/.• Pluskowski, A. (2004). 'Narwhals or Unicorns? Exotic Animals as Material Culture in Medieval Europe'. <i>European Journal of Archaeology</i>. 7.3. 291-313. https://doi.org/10.1177/1461957104056505• Roberday, F. (1660) <i>Fuges, et Caprices, a Quartre Parties Mises en Partition pour l'Orgue</i>. Paris.• Schmölcke, Ulrich. 2022. "What about Exotic Species? Significance of Remains of Strange and Alien Animals in the Baltic Sea Region, Focusing on the Period from the Viking Age to High Medieval Times (800–1300 CE)" <i>Heritage</i>. 5.4. 3864-3880. https://doi.org/10.3390/heritage5040199• Sherman, Josepha (2015). Storytelling: An Encyclopedia of Mythology and Folklore. Routledge. p. 476. ISBN 978-1-317-45938-5. Archived from the original on 28 September 2023. Retrieved 18 September 2023.• WWF. (n.d.) 'Unicorn of the Sea: Narwhal Facts'. https://www.worldwildlife.org/stories/unicorn-of-the-sea-narwhal-facts
(fake)	29.00 – 30.00	Electronic Coda

Dissemination: Performance

The first performance of the piece took place on 9th May 2025 with the performers:

[Pete Furniss](#) - clarinets

[Amy Jolly](#) - cello

[Henry McPherson](#) - recorders

Lauren Redhead - electronic sound

[Ellen Sargen](#) - flute

Alistair Zaldua – e-violin

This ensemble was brought together specifically for the performance of the piece, and comprises musicians who are all specialists in contemporary music performance, improvisation and collaboration.

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concert poster



Dissemination: Download

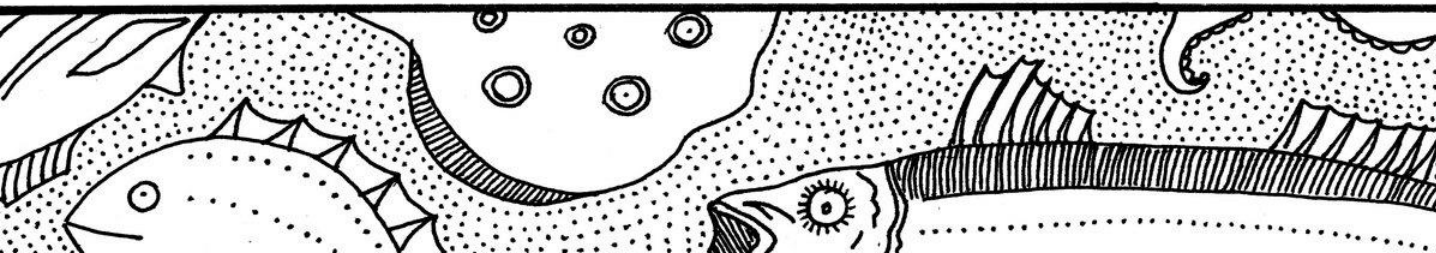
A recording was made of the concert on 9th May and was released as a download.

The download is both a documentation of the piece, and a further dissemination of the work to audiences who were unable to attend the conference.

[The piece can be streamed or downloaded for free from Bandcamp.](#)

laurenredhead

fishfossilfake



Score

The score for the piece addresses the answers to the research questions posed in this project: it contains the solutions arrived at to the management of multiple sources or styles of notational information which are ordered in time. The success of these solutions is documented in the recording of the first performance of the piece.

The texts composed for the piece are not only heard in the electronic part but are also included either in full or as part of the collage of notations in the score.

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image: fishfossilfake performance, showing Henry McPherson, 9th May 2025. Photograph: Daryl Feehely.

fishfossilfake
lauren redhead
2025

performance notes

all performers need a timer during the performance, to synchronise the various sections of the piece.

the video score can also be used in place of a timer, alongside the additional graphic and notation materials.

for the most part, the scores and instructions afford a wide range of interpretation by design. performers are encouraged to consider these instructions primarily in sound.

§1: Fish

0:00 - 1:00 : electronic sound. ensemble tacet.

1:00 - 2:00 : (electronic sound continues)

ensemble: play a small number of sparsely distributed gestures, each performer playing only 1 - 4 times during this minute. pitches for these gestures to be taken from the '**FishFossilFake tunes**'; rhythmic details free.

p - mp

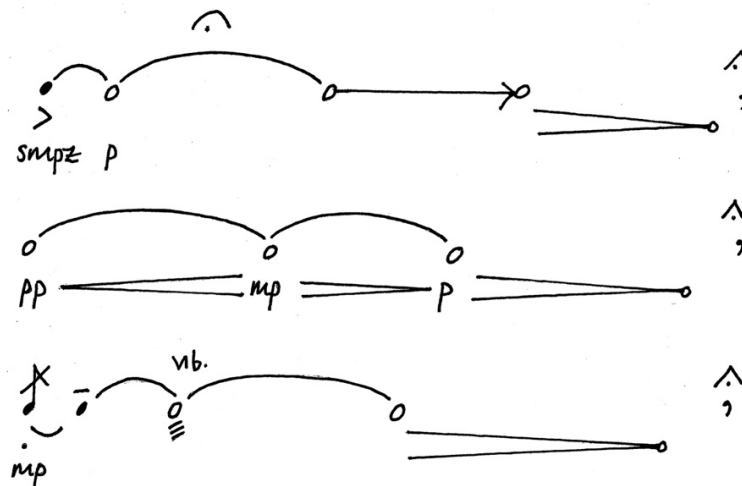
2:00 - 3:00 : (electronic sound continues)

ensemble: drone section

a series of long tones, the pitches derived from the '**FishFossilFake tunes**'. play quasi-continuously, varying accents and timbre.

p - mf

examples of this:



3:00 - 6:00 : **sea bass recipe** (electronic sound)

ensemble: the recipe should also be treated as instructions for playing/sounding/improvising:

a large family of white fish
with more than 400 species
add a little more ... until it is
bubbling
arrange in groups the length of
each fish
arrange on a large tray
ask your fishmonger to do this
bake the fish
blend until totally smooth
cook properly
cook this fish in any number of
ways
continue all the way around
until there is just a little
hole at the end
cover with some cling film
cut into matchsticks
cut them in half if large
divide between two plates
dredge, shaking off any excess
do it quickly
drop them into a bowl
feels firm when pressed
finely grate
first, remove moisture
flake easily with a fork

fold over the parcel so it
becomes a triangle
following the instructions
give a tasty makeover
heat the grill to high
immediately, pull the fish out
it's best not to reheat
keep these tips in mind
lay a square of foil on your
work surface with a square of
baking parchment the same
size on top
leave the bones (but not the
heads)
let your guests open them up
themselves
lightly score the skin
neatly drizzle
pass through a fine sieve
peel away and discard
place a couple on top
place or angle to stop it from
sticking
pop them under
pour over
prepare a day ahead and chill
put in a large bowl

repeat, until all the fish are
wrapped, sauced and sealed
rinse under cold water
roughly chop
scaled and gutted
scrunch the remaining bit to
seal
season all over
season and keep warm or make
ahead and reheat
serve cold or at room
temperature
set aside
slash the skin
slice as thinly as possible
soak in cold water
splash with water
sprinkle
start to curl up a bit
store in an airtight container
for up to three days
stuff the cavity
transfer to a serving plate
turn them carefully
upside down
wandering around outside
whisk together

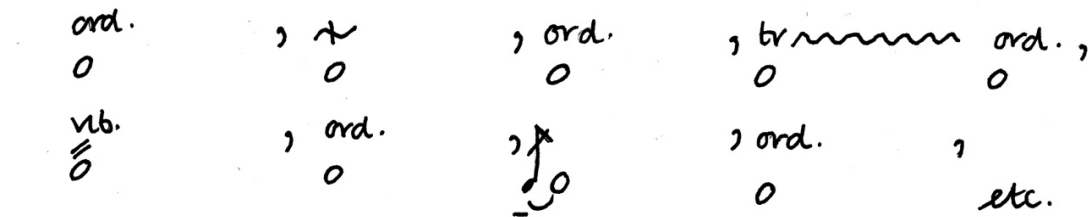
6:00 - 7:00 :

ensemble: regular drone section

segue from **sea bass recipe** to a series of long tones, one breath/bow per note, the pitches derived from the '**FishFossilFake tunes**'. play quasi-regularly, varying accents and timbre.

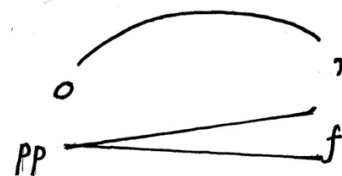
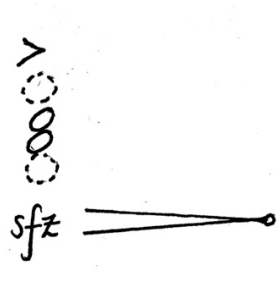
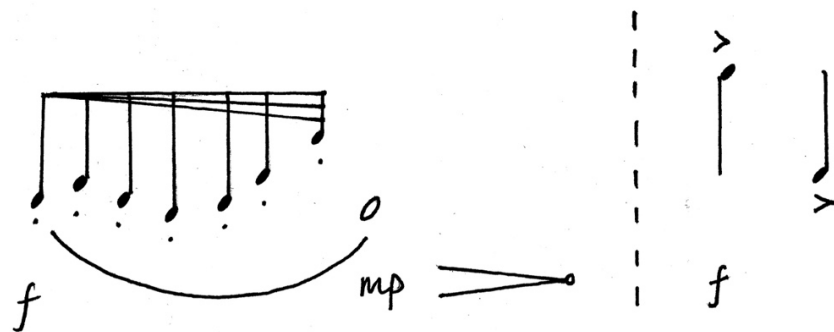
p - mf

examples of this:



7:00 - 10:00 : **the sea bass** (electronic sound)

ensemble: cue for all instruments to play is the phrase '**sea bass**'. each time this is heard, respond with one of the following gestures:



§2: Fossil

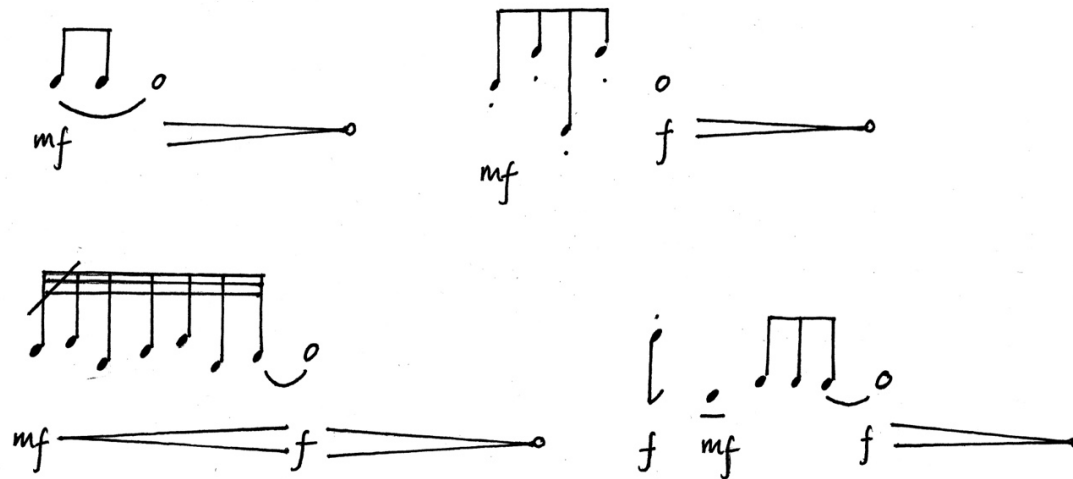
10:00 - 11:00 : electronic sound. ensemble tacet.

11:00 - 12:00 : (electronic sound continues)

ensemble: play gestures comprising multiple attacks followed by a long tone and decrescendo. pitches for these gestures may be taken from the '**FishFossilFake tunes**' or improvised.

mf - f

examples of this:

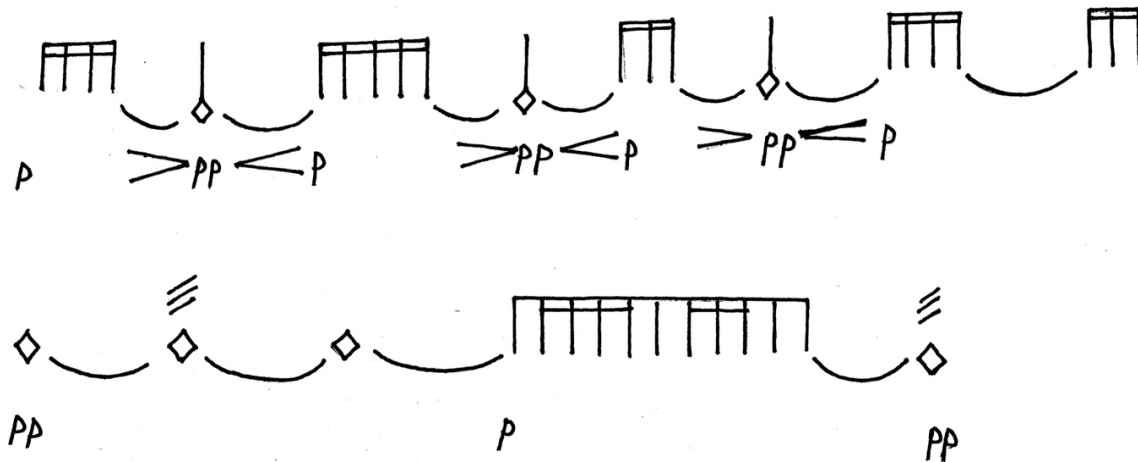


12:00 - 13:00 : (electronic sound continues)

ensemble: final decrescendo to a section of 'whispering': textural section achieved through breathy, sotto-voce, or unstable techniques (for example, half breath/half bow, bowing the wood of the instrument, key sound, etc), mimicking an overheard cacophony of whispered voices. pitch is therefore generally obscured or unstable.

$$pp - p$$

examples of this:



13:00 – 15:00 :

ensemble: score (follows)

A unison: relative pitch notation; 'high' and 'low' designations need not remain constant

$\text{♩} = 60$

Musical notation for section A, measures 1-8. The notation is in unison and features a variety of time signatures: 4/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, and 2/4. The notes are primarily eighth and sixteenth notes, often beamed together. Dynamic markings include *f*, *mf*, *mp*, and *f*. The notation includes accents and slurs.

B unison

Musical notation for section B, measures 9-13. The notation is in unison and features a variety of time signatures: 4/4, 2/4, 3/4, 4/4, and 5/4. The notes are primarily eighth and sixteenth notes, often beamed together. Dynamic markings include *sfz*, *p*, and *mp*. The notation includes accents, slurs, and crescendo/decrescendo hairpins.

C no longer unison. repeat single bars or any groups of bars until 15:00; tempo may vary

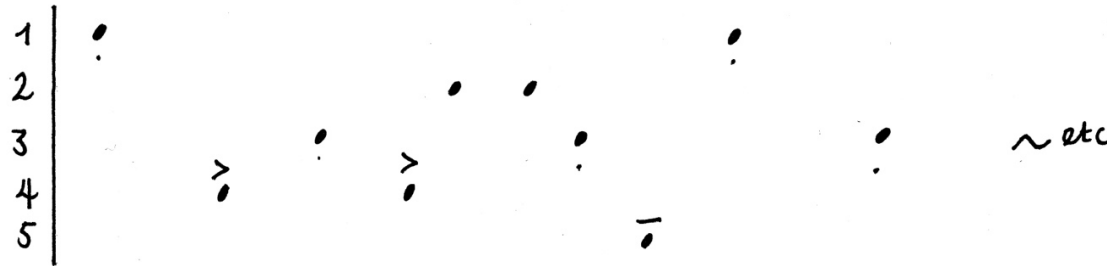
Musical notation for section C, measures 17-21. The notation is no longer unison and features a variety of time signatures: 4/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, and 2/4. The notes are primarily eighth and sixteenth notes, often beamed together. Dynamic markings include *p*, *mp*, *pp*, and *p*. The notation includes accents, slurs, and repeat signs.

15:00 - 16:00 : electronic sound.

ensemble: pointillist section. all performers play individual notes or groups of two notes, each time only when no other performers are playing.

p - f

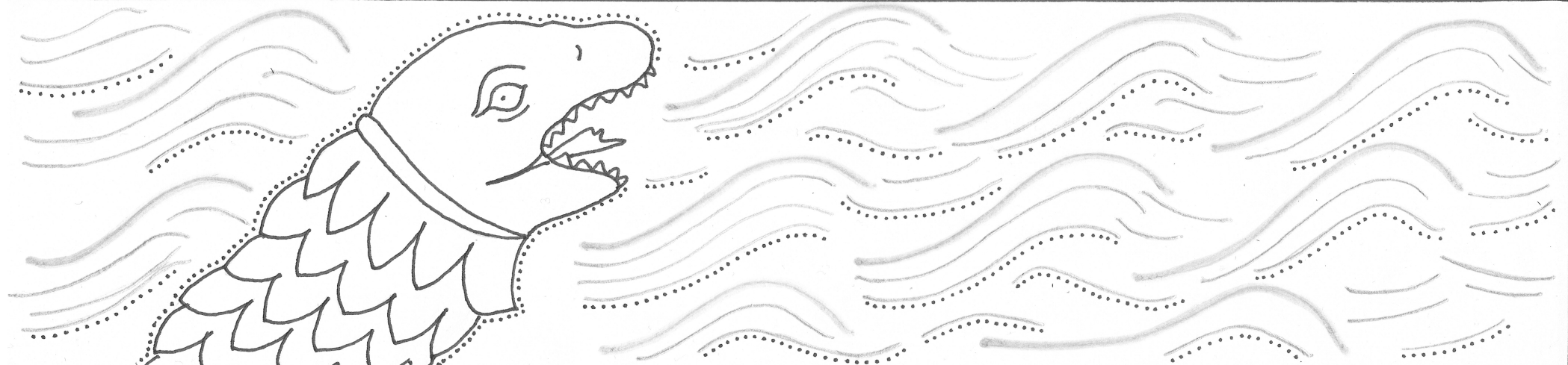
examples of this:



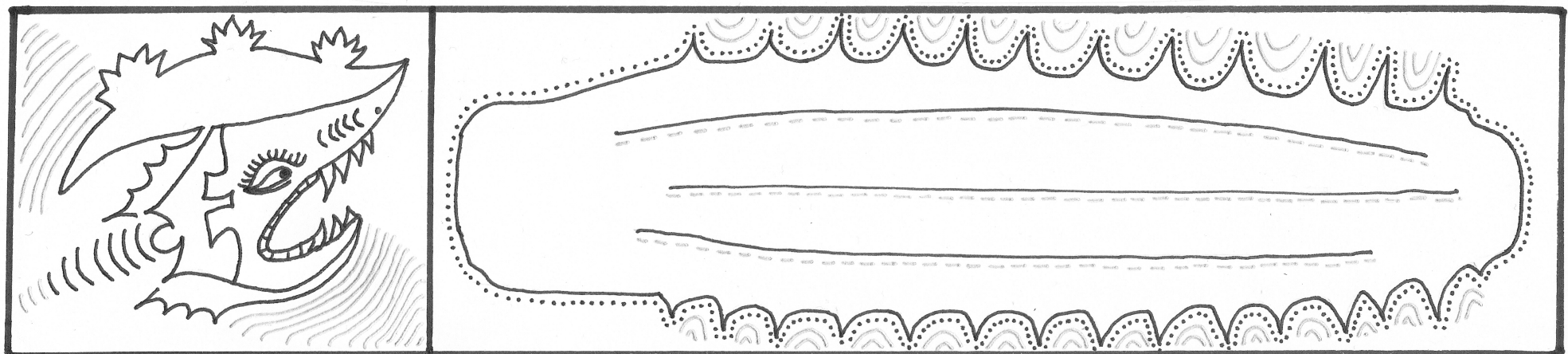
16:00 - 17:00 : electronic sound '**the four hundred year old shark**'.
ensemble tacet.

17:00 - 20:00 : **the four hundred year old shark**(electronic sound)

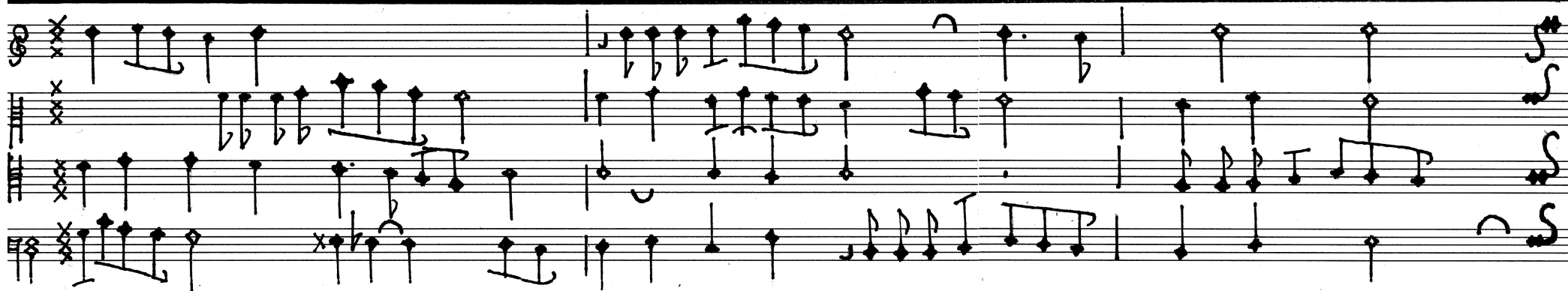
ensemble: graphic score materials to be used as desired and in any order/combination.



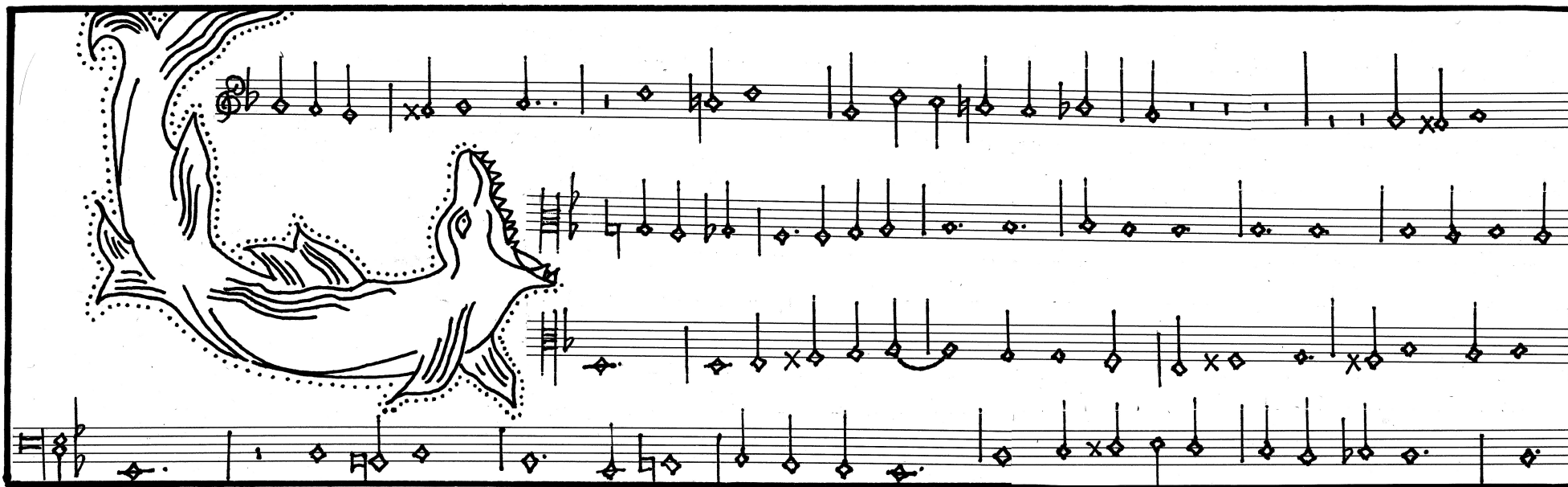
the shark ruled the waters of the mediterranean for hundreds of thousands of years



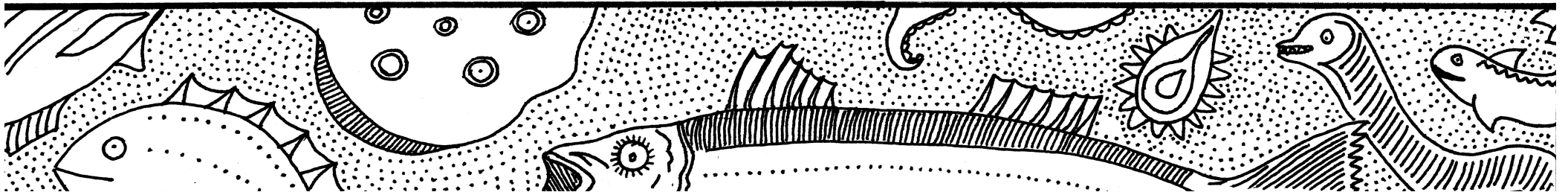
some died after being caught by fishing nets



there is a high probability that there are even more lurking beneath the sea-bed



the sea was so full of sharks



§3: Fake

20:00 - 21:00 : electronic sound. ensemble tacet.

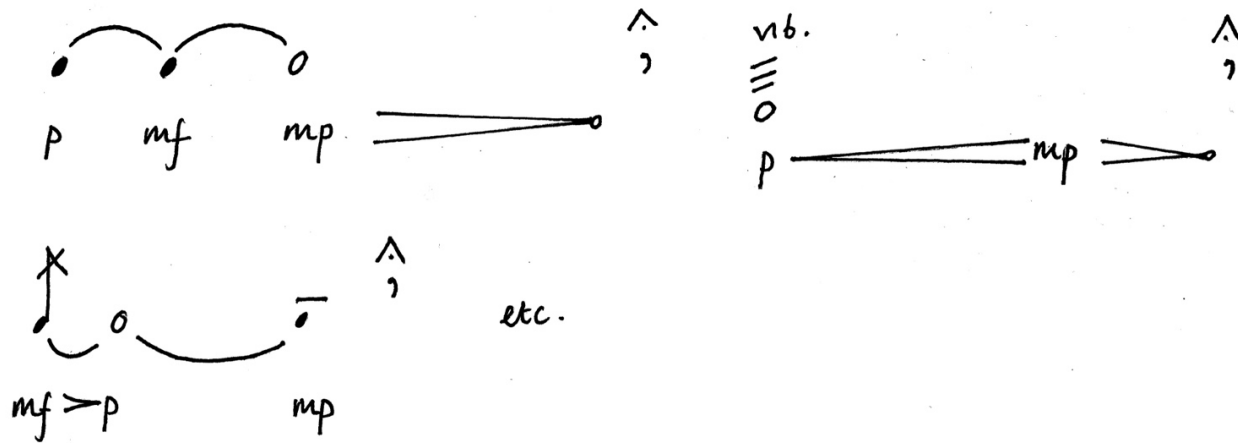
21:00 - 23:00 : (electronic sound continues)

ensemble: drone and long tone section

a series of long tones, the pitches derived from one of the '**FishFossilFake tunes**'. play quasi-continuously, varying accents and timbre.

p - mf

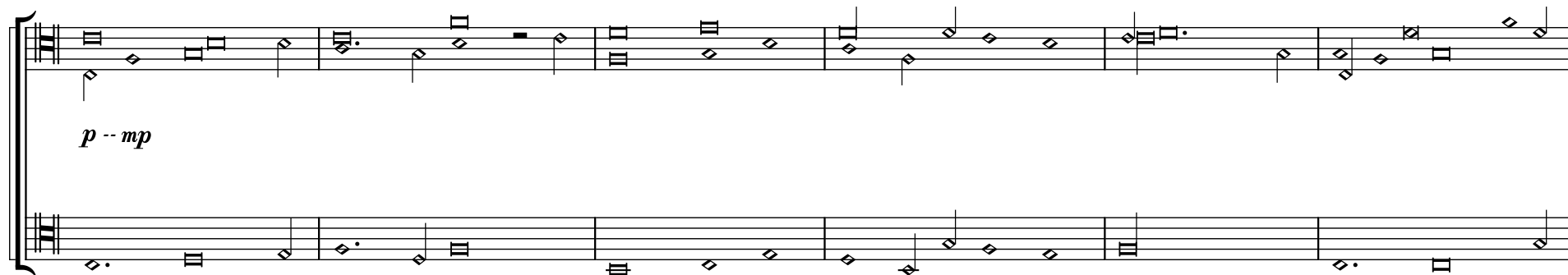
examples of this:



23:00 - 25:00 : **organum**

ensemble: score (follows)

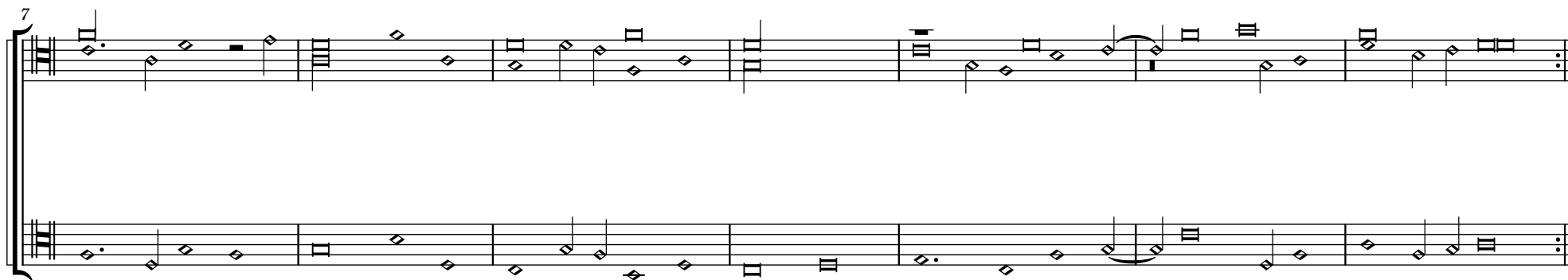
$\text{♩} = 48$



p -- mp

This system contains the first two staves of a musical score. The top staff features a series of chords and single notes, including a half note with a dot, and a final half note with a diamond-shaped articulation mark. The bottom staff provides a harmonic accompaniment with chords and single notes, including a half note with a dot and a final half note with a diamond-shaped articulation mark. The dynamic marking *p -- mp* is positioned between the staves.

7

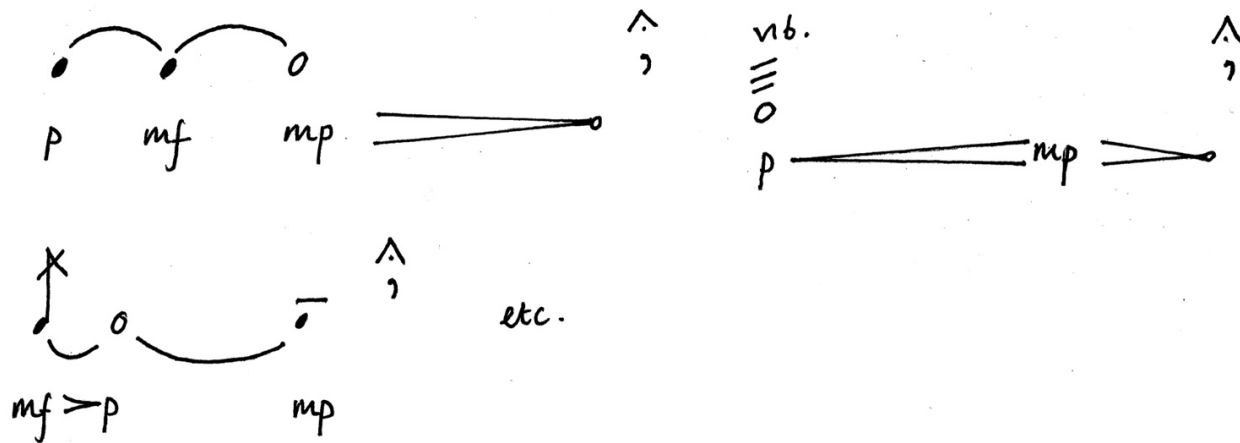


This system contains the next two staves of the musical score. The top staff continues the melodic and harmonic material, featuring a half note with a dot and a final half note with a diamond-shaped articulation mark. The bottom staff continues the accompaniment, featuring a half note with a dot and a final half note with a diamond-shaped articulation mark. The system concludes with a double bar line and repeat dots.

25:00 - 26:00 : electronic sound 'the narwhal'.

ensemble: reprise drone and long tone section (as 21:00 - 23:00)

pp - p

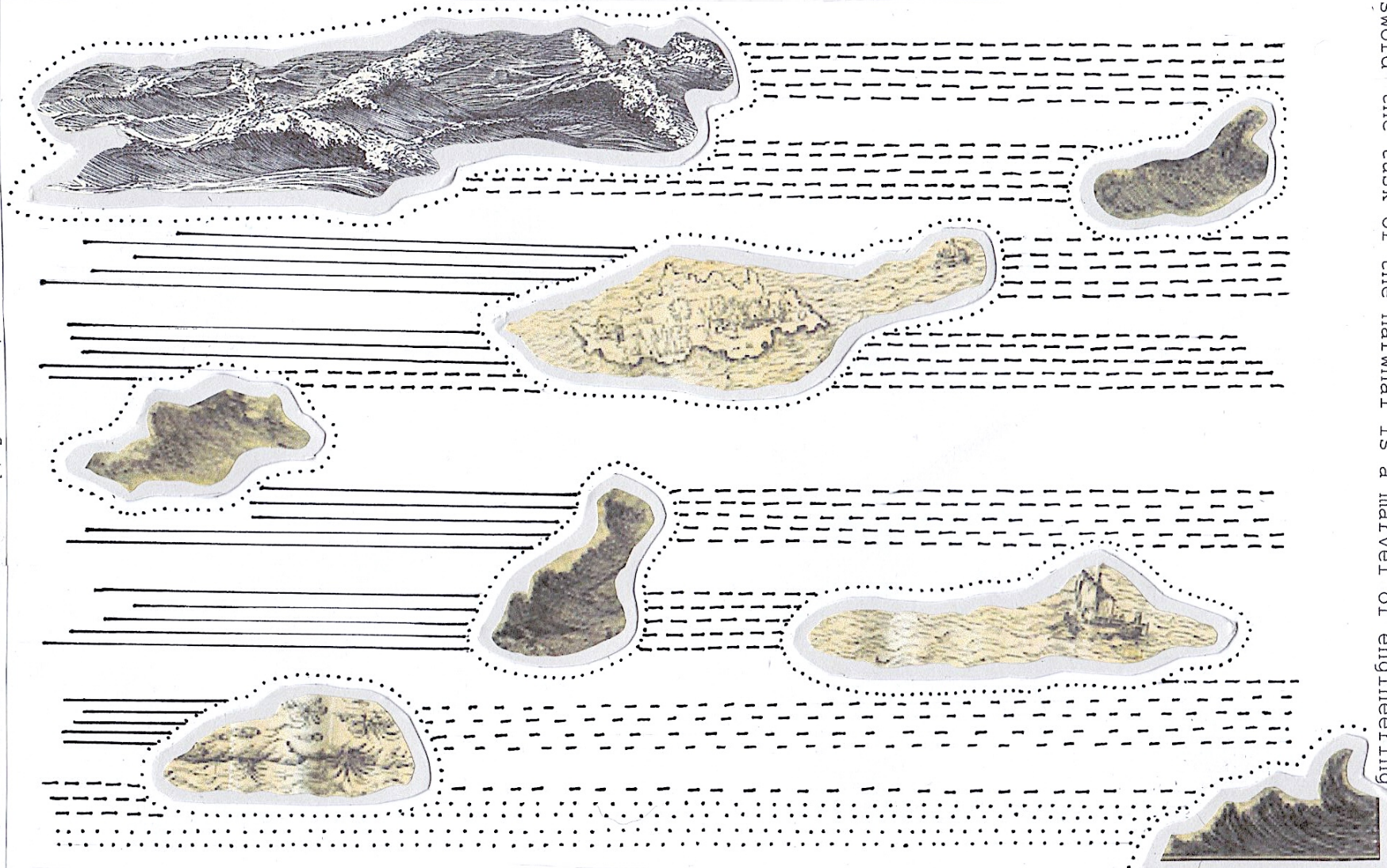


26:00 - 29:00 : **the narwhal** (electronic sound)

ensemble: graphic score materials to be used as desired and in any order/combination.

the tusk of the narwhal is as hard as steel the narwhal furiously rushes against the most trifling obstacle
the narwhal communicates using squeaks like a creaking door the narwhal is armed with a kind of ivory

the beautiful narwhal communicates using strange whistles the narwhal
sword the tusk of the narwhal is a marvel of engineering



lives in the vast empire of eternal frost, where darkness reigns for so great a portion of the year
the habitual sojourn of the narwhal is among the ice and icebergs of the arctic seas is a kind of whale



UNDERSIDE VIEW OF THE NARWHAL

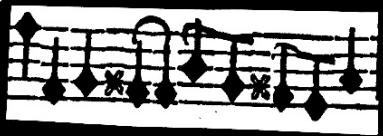
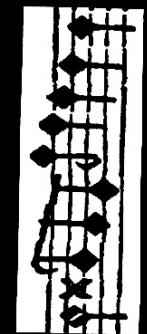
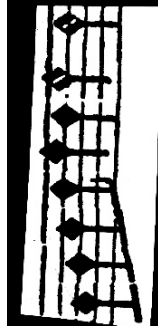
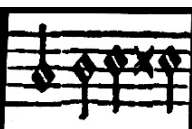
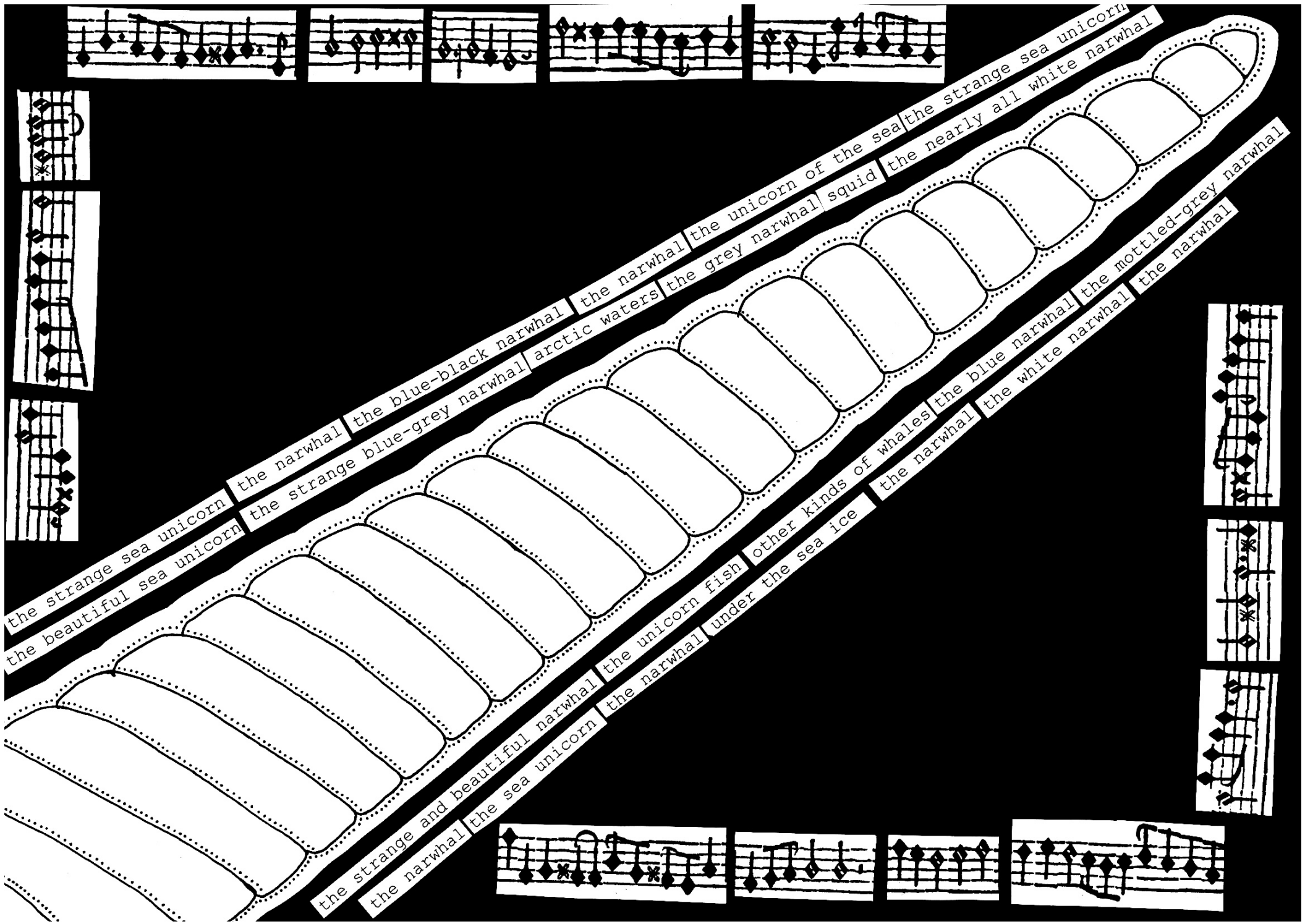
noise can interfere with the communication among the narwhals

armed with a halberd

communicates using sound

the tusk of the black narwhal is an enlarged tooth

THE NARWHAL



29: 00 - 30:00 : electronic coda. ensemble fade to tacet.

end.