

North Atlantic - Richard Hughes

North Atlantic is a piece based on responding to visual and aural cues using a wind speed map as an animated graphic score. It is written for six performers and fixed electronics.

Each performer inhabits a hexagonal area on the map where they can view the edges of their neighbours' area also.

The pitch set is fixed to 5 equal divisions of the octave (5-edo). Further explanation below.

Meteorological explanation:

Wind speed is caused by air moving from high to low atmospheric pressure, the greater the change in pressure the greater the wind speed. The figure below demonstrates the colour code for wind speed in the videos attached.

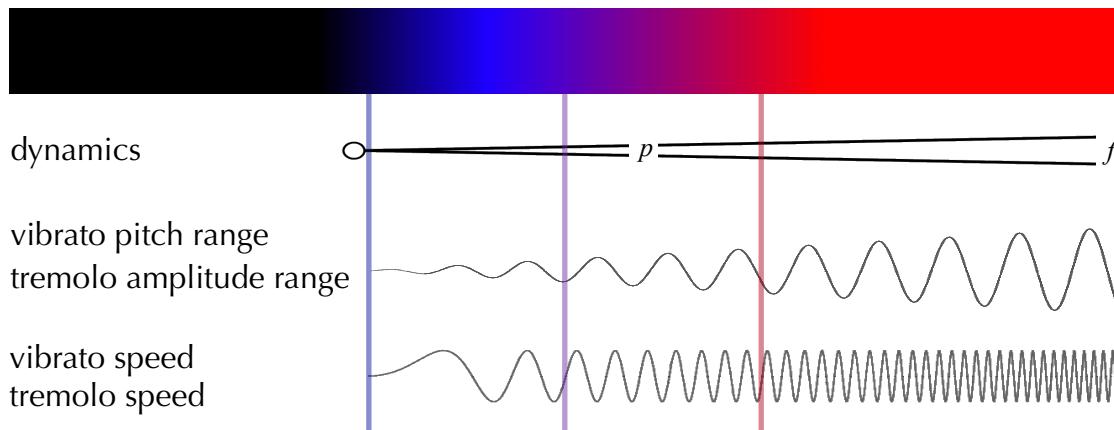


Colour code for wind speed from 0 to 70 knots.

Visual cues: Wind speed is mapped to specific timbral changes and techniques in each instrument.

One pitch should be sustained or repeated for the duration of a bout of wind. A pitch can be changed when picking up a neighbour's pitch (explained below) or a new bout of wind.

For all performers the following global techniques can be implemented.
Performers have a choice of which techniques to use.

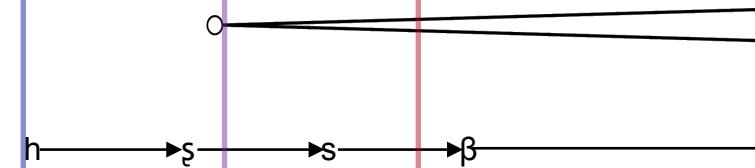


The following techniques are specific to each instrument. Performers have a choice of which techniques to use.

& **Anne** - flute
Gareth - bass clarinet

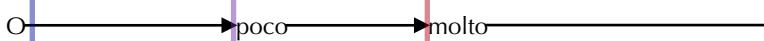
multiphonics

phoneme breath



Dario - contrabass

sul ponticello

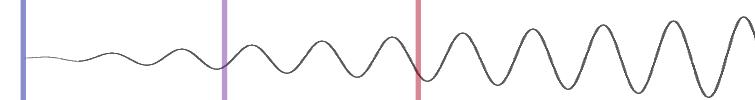


bow pressure



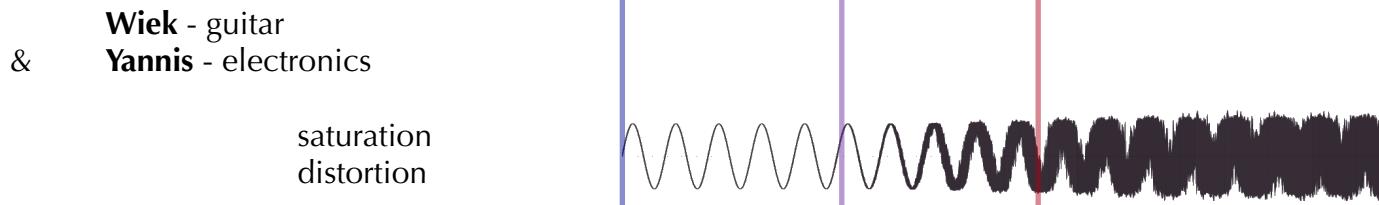
Reinier - piano*

phasing



cluster range

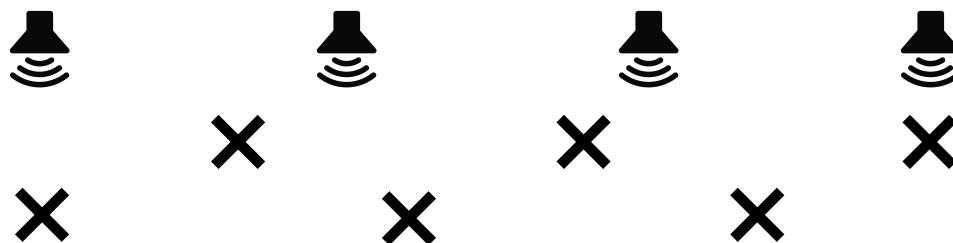




Aural cues: Performers have two to four neighbours. If wind is coming from a neighbour's hexagon the performer should match the note (on any octave) of their neighbour.

Layout: The performers should be positioned like the hexagons on the wind map (see still attached), whilst being able to see one's neighbour.

The fixed electronics is a quadrophonic set up situated behind the performers.



5-edo

Attached are the 5-edo scales beginning in G and A respectively marked with quarter tones and difference in cents.

5-edo scale beginning on G

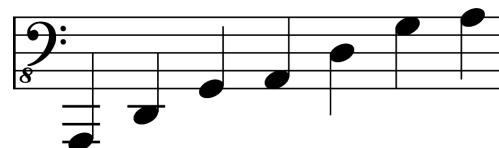
-10 -20 +20 +10

5-edo scale beginning on A

-10 -20 +20 +10

*Reinier - piano

The piano's pitch set is the following:

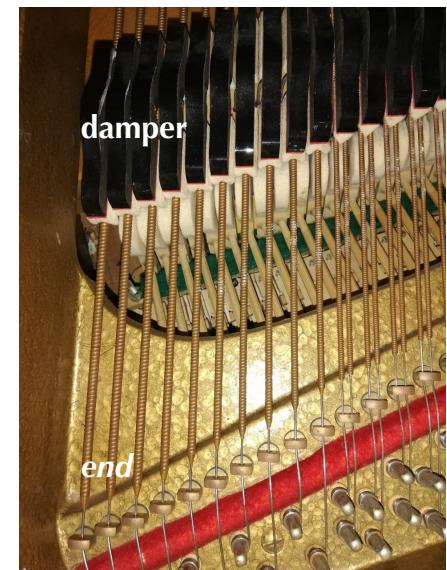


Phasing indicates to slide the finger between the damper and the *end* of the string. More specifically the end of the copper coil over the string near the tuning pegs. As the wind gets stronger the finger should slide a greater distance between the damper and the *end*. By repeating a note the phasing effect becomes more clear.

When the wind is weak, cluster chords centred on any of the pitches within the set above are to be played. As the wind gets stronger the pitch range of the cluster gets smaller until it is one of the pitches from the set.

Projection: A video of the wind map without the hexagons should be projected behind performers for the audience to see.

All further documentation such as video parts from various forecasts are provided though this link: richardhughes.ie/wind



Still from master video

