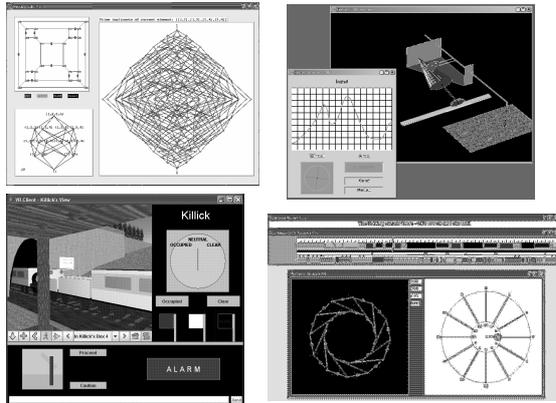


Sense-making in mathematics, in the physical world, social interactions and music ...

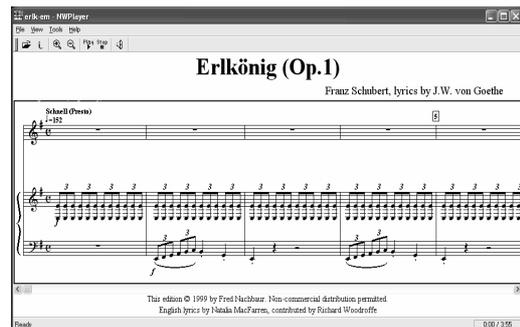


Music and meaning

- not formal linguistic semantics?
- extra-musical experience significant
- state vs behaviours
- idealisation in classical harmonic analysis
 - significance for composition: intellect / affect
- performative aspect
- poetic vs prosaic language affinities
- significance of familiar / ritual interaction

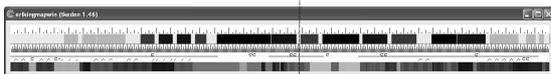
Schubert's Erlkönig

- Goethe's ballad **Erlkönig** was inspired by a true incident of a father who, late at night, rode to a doctor's house in a distant town and, on his arrival there, found his sick son dead in his arms. Schubert set the poem in 1815 at the age of 17.
- The song is renowned for its taxing accompaniment, where the right hand must sustain a repeated triplet rhythm that conveys the intensity of the horse's unrelenting ride.



A map of Erlkönig, together with a cartoon script version of the ballad

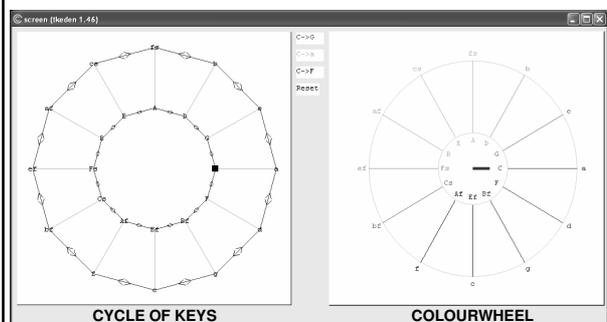
The horse rides in the night ... The child fears shadows ... The Erlkönig entices
The father asks after the child ... he dismisses the fear ... the c. cries out ...



... the f. reassures ... the c. cries in anguish ... the E. compels ... the f. drives the horse ...
... the E. beguiles ... the f. rebuts fear fiercely ... the c. despairs ... The c. is dead

Making sense for the listener ...
... the Erlkönig story ... the singer's roles ... features of the piano part

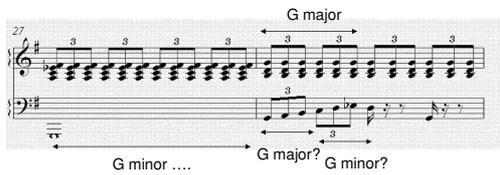
Modelling the classical cycle of keys



Making sense for the musician ... the classical model of harmony ... harmonic colour ...

Making sense for the musician ... noticing a harmonic conflict ...

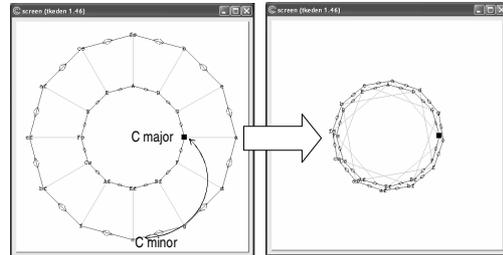
Tonic major-minor ambiguity in Erbkönig



This extract from Erbkönig isn't in the MAJOR or the MINOR ...

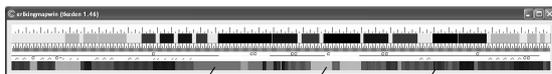
Making sense for the musician ... resolving the harmonic conflict ...

Modelling major-minor conflation



Making sense for the musical analyst ... the expressive role of harmony ...

Harmonic devices illustrated in the map of Erbkönig



The use of major keys in conjunction of the Erbkönig role

The static tonality in the final ride

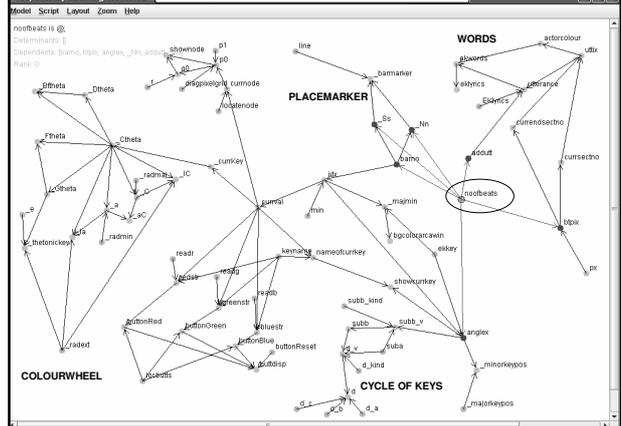
The remote point of arrival

Compare: settings by other composers such as Loewe

the initial lack of explicit minor tonality in the texture

"He reached his home in doubt and dread"

Making sense for the model maker ...



Characteristics of Empirical Modelling

EM as *modelling in the space of sense* – enabling and enacting transformations that have meaning in the referent (cf. Felix Klein's characterisation of a geometry).

The quality of an EM artefact does not reside chiefly in what it represents, but in its potential relationship to what it does not represent.

EM enlists meanings that evolve with experience, as when a representation of music migrates from being meaningless, to merely symbolic, to something *not in the notes*.

Meaning is only to some degree enshrined in the artefact – it is more appropriately regarded as elicited afresh on every interaction.

EM enables us to trace activities that are involved in negotiating meanings.