

Note for

**... with fish scales scattered ...**

by

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Duration: 8 minutes.

**... with fish scales scattered ...** for 2 channel tape was composed in January and February 1982 on the digital computer in the Computer Music Research Project studio at Melbourne University.

The work was inspired by a visit I made to the Aboriginal island community at Milingimbi in North-East Arnhem Land in 1973. Milingimbi is the home of many extraordinary painters and it is on the beach there where many of the community's artists work.

Although the title is more an indication of a state of mind than a literal image, it was the kaleidoscopic effect of the continual random scattering of fish scales by the gentle wash of the water at the ocean's edge, the way the light reflected and refracted their oily colours and textures, that left a permanent impression on my mind.

Technically the piece is concerned with gradual transformation through inexact repetition and the control of musical elements in a fashion not possible in human performance (ritardando, portamento, articulation etc.).

The musical material of the work easily divides into foreground and background. The foreground material consists of a repeated rippling arpeggiated figure which begins in both channels. The background material makes subtle use of glissandi. The sounds are more vocal in nature and are evocative of the calling of animals, especially water animals.

At each repetition of the arpeggiated figure it changes in the following ways:

- The duration of the arpeggio is determined by choosing from a table of durations which are golden section related.

- Although the same set of pitches are used throughout (one channel is a transposition of the other) these pitches are randomly reordered.

- The duration for each note of the arpeggio is randomly chosen from a table of possible durations which are also golden section related. This process results in different sonorities being sustained after each arpeggiation.

- The two channels have different tempo schemes; one channel remains at a fixed tempo whilst the other is gradually decreasing. This creates a slow and very controlled phasing effect between the two channels. The two channels begin at the same tempo. Towards the end of the work the tempi are different enough for there to be an overlap between the ending of the slowed arpeggio in one channel and the beginning of the next fixed tempo arpeggio in the other.

All the timbres were created using simple additive synthesis, with the background sounds being composed mainly of odd numbered partials. (fundamental, 12th, 17th etc.)

There is an interesting tension created by the bringing of sounds usually associated with the background (ostinato, arpeggiation) into the foreground and vice versa. This partially accounts for the hypnotic quality of the work.

