

STUART MARSHALL

IDIOPHONICS

*Idiophonics*, as the title implies, is concerned with the individuality of both performer's and audience member's perception and with the signification of these differences.

The work has no definitive form—performances are constructed from a repertoire of simple sections.

The most recently performed version consisted of three sections:

1. Three performers carrying tuned wood blocks and hammers stand back-to-back in the centre of the performance space. They attempt to make a simultaneous attack by intuiting each other's moment of entry. When a performer detects simultaneity s/he takes a pre-determined number of steps away from the centre of the space.

A series of closely spaced pulses, even though they may occur within a single pulse's reverberation time, do not constitute simultaneity. As masking must be total, errors may occur when two simultaneous pulses are thought to be three. As the performers separate within the space the environmental acoustics begin to alter individual performer's perception of simultaneities. As the distance between performers increases to more than 57' audible delays are formed by the sounds traveling for more than 50 ms. These delays markedly affect an individual performer's perception as sounds heard simultaneously by one performer cannot be heard as such by any other performer.

The section is completed when performers reach the extremities of the performance space.

2. Three performers tune ultrasonic whistles having a low frequency range within the acoustic spectrum to the lowest frequency available on all three whistles.

The performers separate to the two furthest points of the performance space, A and B at one point, C at the other.

Performers A and C produce a continuous tone as A walks rapidly toward C. C hears A's frequency shifted upwards by a doppler effect and tunes his/her whistle to this frequency. C carries this new frequency (which is heard as a downwards doppler effect by A) to B who repeats the operation.

Each audience member hears a frequency shift differently depending upon his/her position in relation to the moving performer.

The operation is continued until the whistle frequencies are carried out of performers' range of perception.

3. Three performers carrying portable foghorns stand at three exits from the performance space. Each in turn produces a sound pulse which is immediately "echoed" by the other two. The performers then leave the auditorium producing pulse sounds at will.

When a performer hears a signal s/he replies immediately.

As sound delays increase, returning replies may sound like new signals which have been returned as echoes from distant buildings or landforms.

The section finishes when performers can no longer maintain audio contact.