

## *Microphone technique*

Attention to microphone technique can often make the difference between a sow's ear and a silk purse: although digital signal processing can work wonders with audio material, it cannot really repair things that are 'wrong' in the first place. The three most neglected aspects of microphone technique are usually **proximity, angle** and dealing with **plosives**.

### **Proximity:**

The microphones used in the UNE Multimedia Suite (indeed most microphones) will give their best performance if the speaker's mouth is between 75mm and 125mm (3 inches and 5 inches) distant from the front of the microphone: too close, and you will get an exaggerated bass response (a phenomenon beloved of rock and roll singers who wish to sound rugged and masculine); too far away, and you will reduce the ratio between that which you wish to record and ambient sound: although the speech will be fairly clear, so will the telephone down the hall.

### **Angle:**

Cardioid microphones (such as those used in the UNE system) are designed to reject off-axis signals. The axis, for such microphones, is 'straight into the end': there's no point treating a microphone like an ice-cream cone — better to aim the microphone straight at your tonsils, otherwise you will lose bucket-loads of treble (thereby losing distinctions between fricatives, for example). Also, being off-axis will reduce your signal to noise ratio.

### **The trouble with plosives:**

The phoneme /p/ (or at least its initial aspirated allophone) is by far the mightiest beast encountered by a microphone. For this reason we have pop filters, such as the circular clip-on one in the recording room, or the foam ones for field recording. These (especially the circular ones) diffuse the gusts which accompany most (aspirated) stops, without attenuating anything useful for recording speech. These should be used as a matter of custom, and the clip-on gauze type should be positioned roughly mid-way between the mouth and the microphone.