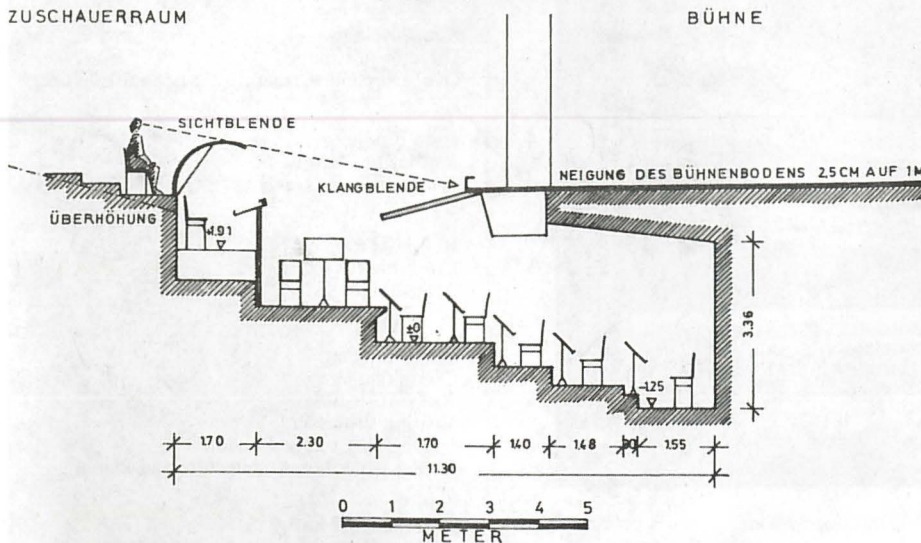


Orchesterraum, Tuschezeichnung · Orchestra pit, pen-and-ink drawing  
La fosse d'orchestre (lavis) · 1882



ators at the exit to the plantroom and secondary attenuators before the room outlets. All related plant and associated pipe-work is vibration-isolated.

A design target limit of NR20 was set for the noise levels. Levels between NR19 and NR22 were achieved in all but a few seats with NR25 in the lighting control room.

The measured noise levels plotted against the NR curves are shown in Figure 2.

### Sound Systems

Arup Acoustics advised on the provision of sound facilities. The use of sound in opera is not highly developed at the College, but 44 microphone lines (18 in the pit), 16 tie-lines and 23 loudspeakers lines have been installed for future use. To overcome the familiar visual intrusion of proscenium loudspeakers, three acoustically-transparent but visually-unobtrusive panels were installed each side of the proscenium arch, at stalls, dress and upper circle levels, with loudspeaker supports behind. With this installation the College can locate effects loudspeakers, etc. in accordance with the particular spatial requirements of the production. The building budget did not allow for a fitted sound control room but distribution routes have been provided for the possible future use of a room at the upper circle level.

Basic show relay/paging and twin channel ring intercom systems have been installed, as well as CCTV.

The previous Parry opera theatre, located below the concert hall, is being converted for use as a recording studio suite, to be linked by multiple audio cables to a patch-field located below the stage.

### Assessment

The general response of the College, performers and press alike has been good, with some particularly favourable press reviews and individual comments. These may be summarised as follows, with the acoustic consultants comments in parenthesis:

- Very good clarity and intimacy – if anything a little too immediate (as expected given the closeness of the performer to the listener).
- Balance slightly in favour of the singers (as designed – students tend to have less well developed voices but play instruments quite loudly).
- A little dry (expected, on account of the volume – a slightly longer RT in the higher frequencies, would have been preferred).
- Noise levels have not been mentioned by anyone, except by their absence, eg “the softest ppp is audible”. (!)

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