



Left three pictures: retractable seating is more costly than manually-erected seating tiers but is cheaper in operation. Folding structures can assist by requiring minimal storage space. Right two: expensive finishes compared with cheap wall panels
 Photos: Fisher Dachs Associates

Economic theatre construction techniques are described and illustrated by architect Virginia Ross from Australia, by consultant Peter Rosenbaum and architect Scott Georgeson from the US, and by consultant Andy Hayles from the UK, who describes the processes used in the temporary theatre for the Royal Shakespeare Company.

impact on the budget not just of the construction and fitting out costs but also of the operational costs. Automation is the most expensive part of theatre installations. Basic technology can also be expensive but if you compare a tensioned-wire grid for a small space at around US\$200k (£106k €156k) with a pipe grid at US\$60k (£32k €47k) you can save money, but at the end of the day you lose some of that flexibility, as well as having more difficult access and less safety.

Finishing materials normally take up less than 10% of the budgets on most of our projects and that should really tell you something about their cost value although the selection of the right economic materials can be a tremendous long term benefit to a project. Some decisions that we can influence include those on materials. They can be expensive; in RPI every wall panel in the studio is budgeted at US\$20/ft² (£115 €168/m²) and is meant to resemble a tree trunk! The real budget cost would be somewhere around US\$100/ft² (£570 €840/m²) versus a fifth of that with the panels made in glass fibre reinforced gypsum (GFRG).

When considering noise isolation and noise control, we need to raise this question with the acousticians: should you isolate locally or do you isolate the entire building or just the noise at the source? In the Clinton Green project where there is a train track under a building, instead of making each performance space a 'box-in-box' construction, with seven different foundations for the seven different spaces, we are basically isolating the noise and vibration at the train track. It is a question of the different cost criteria, and the result of decisions like that can affect the overall cost significantly.

And the most expensive part of many theatres is the acoustician! This occurs especially when the planning puts quiet and noisy zones adjacent!

We spend much time deciding what to put into these spaces in terms of rigging, lighting, cat walks, pipe grids and so on.

We also discuss flexible spaces that do all kinds of wonderful things and we review the options with our clients to make sure that they can do the things they want in a room. A great example was on a Voyager class

