

DIGITAL THEATRE OF THE FUTURE - HANNOVER PLAYHOUSE



For two long years, craftsmen from many countries busied themselves with the creation of a Temple of the Muses in the centre of Hannover which would do more than simply overshadow theatres of similar size. Since it opened in November 1992, the modern, gleaming white building with its asymmetrically arranged windows, sweeping facade, two-pronged roof construction and portholes, has caused a great furore for many reasons. Not least because great emphasis was laid on functionality and flexibility as far as the technical equipment was concerned.

The theatre has a fully digitised lighting system, thereby offering the staff unimagined possibilities. Comments ranging from "very interesting" to "quite fantastic" have been applied to describe the lighting technology, which, in conjunction with the dimmer technology, makes the theatre one of the most modern anywhere. All lighting control and dimming was furnished by Strand Lighting, Germany.

The head of the lighting department in Hannover is Thomas Nickson Smith, who is responsible for ensuring that the "temple" fulfils its potential where the lighting technology is concerned. An experienced lighting designer, Thomas was involved in the project from the earliest planning stage and was able to make the most of his wide-ranging experience in the standards he set out to achieve in Hannover. One example of this is the flexibility of the cabling system installed in the theatre, which even integrates the foyer into the system. There are concealed control panels and power points all over the place; in theory, control of the lighting could be shifted into the foyer. Another example is the selection of the Strand Lightpalette 90 control desk and of the dimmer system. Equally worthy of mention is the installation of a total of 30 connection panels for remote use of the control desk, including one in each dimmer room. As these are cable remote control systems, there is a genuine feedback of the lighting system on the display. Thomas comments, "the remote control points in particular make for really efficient operation in our theatre, because it means that several lighting members of the crew can work at the same time, whilst the designer can concentrate on complex tasks."



Head of Lighting, Thomas N. Smith.

Thomas N. Smith studied lighting design in New York, amongst other places. "The model and the foundation of the course there, was and is work carried out on Broadway. On Broadway, in turn, a lot of people use Strand's Lightpalette 90 and as a result I had gathered a lot of experience of this desk. I think it's absolutely wonderful and was very glad when I found out that it was available in Europe, or rather in Germany, so that I can work with it here," says Thomas of his decision to install the Strand Lightpalette 90 in Hannover. "During the rehearsal period in particular, the speed of the system is very important indeed. Lightpalette 90 and its latest generation of software offers us all possible options and yet in my opinion it is still easier to handle than many other control desks."

Even if the lighting control system can in theory be moved into the foyer, it is normally housed in the auditorium, above the raked stalls seats. This is where the Lightpalette 90 is located, consisting of a main control console with dual electronics and an auxiliary desk. The full capacity of the Lightpalette 90, 1152 channels operating 1152 DMX outputs, is designed into the scheme to access not only the



500, 5kW and 30, 10kW installed dimmers, but also for temporary dimmers, colour scrollers, mechanical dimmers, and any other special equipment using a DMX control interface. The performance required from the software, which has not been used anywhere else in this form, was a challenge even for Strand Lighting. Translated into reality, the system is, for Thomas N. Smith, at least, the system of the future; for a totally computerised control network has been designed.

The mechanical dimming shutter control for the HMI luminaires was specially designed and built by Strand Lighting in Wolfenbüttel. This unit is an absolute first in Germany, since it is directly controlled by the AMX 192 signal. In this way, the mechanical dimming shutters work significantly more accurately than they would currently be able to via dimmers.

The Hannover Playhouse installation has created a fully digital

system of the future. It is the first time in Germany that Strand's EC90 dimmer racks have been installed in a theatre of this size. There are a total of 17 of them distributed in three dimmer rooms. They control 550 circuits, of which 530 are exclusively for the stage lighting. The individual racks in the dimmer rooms are connected to an 800 Amp busbar with main circuit breakers located on each dimmer rack saving a main distribution panel, and also providing a useful solution where there are space problems. In the Playhouse, for example, where the bending radius of the rack power cable prevents its use with the ceiling height of the room.

The three dimmer rooms in Hannover are located on different levels, which correspond to their allocation to the stage, front of house and auditorium. Thanks to the SV90 Dimmer Supervisor program, there are no problems in monitoring the dimmers, despite the racks being distributed in three different rooms. The SV90 Supervisor monitors the function of each individual dimmer centrally from the lighting control. With its configuration of 17 linked dimmer racks, Strand has developed a monitoring system which is unique in the world. It offers the opportunity of remotely accessing all the features of the EC90, from response time and the allocation of dimmer curves via patching, the adjustment of the maximum voltage level (max. 240 Volt) to alphanumeric identification of each individual dimmer making Hannover a truly digital theatre.

Photographs by
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