Scottish Opera

AT THE THEATRE ROYAL GLASGOW

DEREK SUGDEN

The first "Theatre Royal" was designed by the Glasgow architect, Mr. George Bell. It was called Bayliss's Coliseum Theatre and Opera House and was opened on Thursday, 28th November 1867. The opening night was the production of a sensational drama called "The Sea of Ice or The Gold Seeker of Mexico", prices of admission being from sixpence to two shillings and sixpence. The first opera performance was given on Monday, 9th December 1867, with a production of Verdi's "Il Trovatore" by Madame Florence Lancia's Grand English Opera Company.

The name was changed to the Theatre Royal in May 1869 when Messrs. Glover and Francis acquired the lease. Under their new management, the Theatre opened with a performance of Offenbach's "Grand Duchess" on the 8th June 1869.

On the 2nd February 1879, the Theatre was totally destroyed by fire. The Theatre was rebuilt to the design of the London architect, Charles John Phipps, who was responsible for the design of more than 30 well-known London theatres and provincial opera houses including Her Majesty's in the Haymarket, London, the Theatre Royal, Brighton and the Lyceum, Edinburgh. In 1891, he became involved in a serious professional dispute with T. F. Knightley over the authorship of the design for the famous Queen's Hall, London, built in 1891 and destroyed in the second world war. For 15 years, he was consultant architect to the Drury Lane Theatre and was consulted by committees of the House of Commons and colonial governments on questions of theatre construction and acoustics.

The new Theatre was opened on 26th October 1880 under the management of Miss Marie Litton, otherwise Mrs. W. Robertson, with a performance of "As You Like It". On the 7th February 1881, Miss Litton started a series of promenade concerts of which "Signor Foli and Signor Runcio" were amongst the singers who appeared on the opening night.

There were different managers from 1881 and it was closed for some long periods until Messrs. Howard & Wyndham Ltd. took possession in July 1888. The Theatre was reopened on the 10th September 1888 with Mr. Henry Irving and the Lyceum Company in Faust.

On the 1st March 1895, the Theatre Royal was again destroyed by fire. The architect for the reconstruction was again Charles John Phipps and the Theatre was reopened on the 9th September 1895.

In 1924, the Directors of Messrs. Howard & Wyndham Ltd. carried out improvements to the Theatre Royal and in the Evening Citizen of the 5th April 1924, a short article recalls the history of the "Royal".

The Theatre was sold to Scottish Television in October 1956.

It was on the morning of the 14th August 1972 that I received a letter from Peter Hemmings, General Administrator of Scottish Opera, telling us of the possibility of acquiring the Theatre Royal as a home for Scottish Opera. We took the night train on Monday, 21st August and arrived in Glasgow on Tuesday, 22nd August. It was to be the first of many night journeys by train and early morning journeys by air to Glasgow.

We walked slowly up Hope Street, crossing to the West side and I was not encouraged by my first view of the Theatre Royal. We did, however, venture inside and, in the company of Frank Morris of Scottish Television, had our first view of what must have been one of the most lovely auditoriums of the Victorian era.

After walking and crawling all over the building for two hours, we became very excited by its possibilities. We met Peter Hemmings, Ainslie Millar and other members of Scottish Opera at Elmbank Crescent and enjoyed our first lunch at the Shandon Buttery. We finished the day at John Boyle's house talking until 11 o'clock with Alexander Gibson and only just catching the night train home.

After talking about our excitement of the possibilities of restoring this fine Opera House, the first question was "how much will it cost?". When we responded with "how many seats do you want?" and then guessed at a figure, there appeared to be a credibility gap which would have to be closed before we carried out a real feasibility study.

I wrote to Peter Hemmings on the 24th

August setting out my ideas for a cost study. As a result of this, we were appointed to prepare the first cost study which included many options and, subsequently, a further cost study to arrive at a basis for a conversion and restoration scheme.

After many meetings and talks about our proposals, which included a trip to Snape on the 20th December 1972 with Alexander Gibson, Peter Hemmings and Ainslie Millar, to look at the orchestra pit, we were appointed in January 1974 to prepare documents with a view to arranging a contract to start on the 1st October 1974 and completion of the Opera House on the 30th September 1975.

We began work in earnest on the 1st April 1974 and published the Scheme Design Report in August of that year.

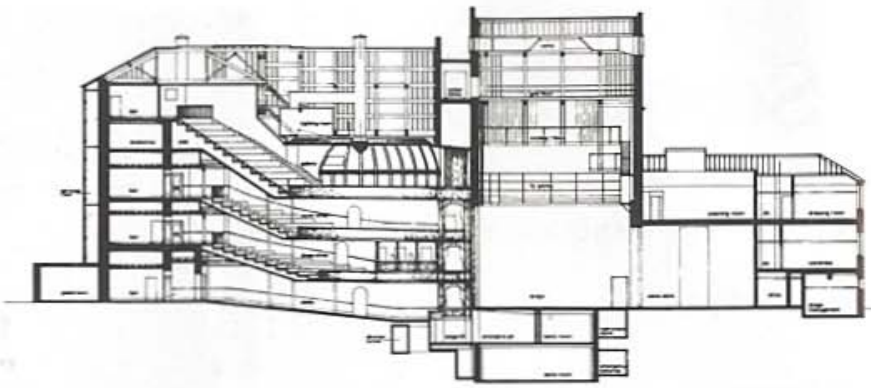
Scottish Opera had asked us to provide them with a home; a fully equipped Opera House which was also suitable for ballet and theatre. We were to house a hundred artists and a pit big enough to hold a Wagner or Verdi orchestra. It was hoped that at a later date the whole company, including its administration, could be housed in the Opera House. The auditorium was to seat between 1,500 and 1,600 people.

The Theatre Royal, when we visited it and surveyed it, was really a shell which for the last 15 years had been used as a television studio. The whole theatre had been fitted with a conglomeration of spaces totally unrelated to its original use. The only area which had survived with any of its former splendour was the auditorium where the fibrous plaster, by some miracle, was left intact and had sufficient of its original style to form the basis of a restoration.

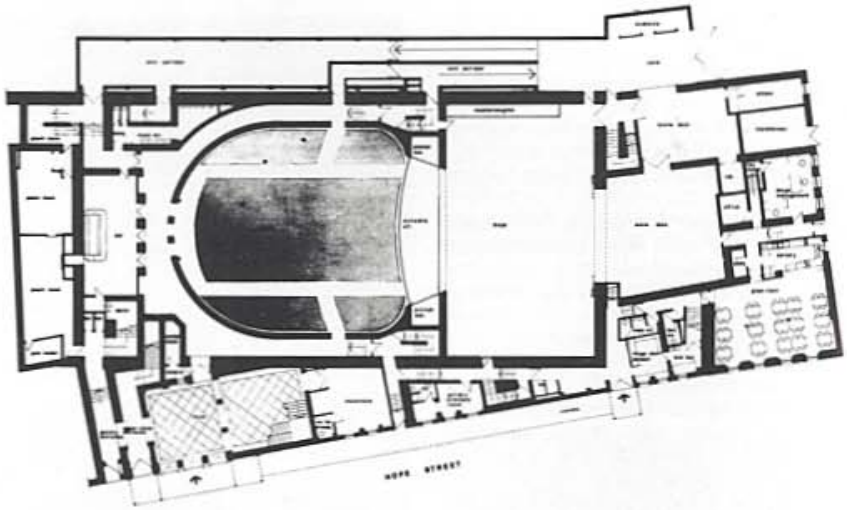
Although serious design work only started in April 1974, we had been thinking about our approach during the preparation of the two cost studies and we had already decided about the fundamental relationships between the pit, the stage and the auditorium. There were two possible approaches to the design: either to restore the auditorium and redesign the adjacent areas to be in style so that the whole Opera House had a unity and clarity related to the original, which is similar to the approach taken by a musician completing or realising another composer's work, or to restore the auditorium and design all other areas as a modern building so that the centre was held like a rich jewel in a highly disciplined contrasting framework. We decided on the first approach together with three strategic design decisions on which the whole restoration rested; they were as follows:

(1) To avoid destroying the quality of the auditorium, the pit was extended under the stage so that the orchestra rail remained in its original position. This had the added advantage of making the pit similar to the Bayreuth, giving more prominence to the sound from the stage.

(2) To avoid the problems posed by stage lighting on the tier fronts, the dome was modified to form a lighting bridge which is hidden by a fibrous plaster trap door forming part of the existing dome; this is lowered when the house lights are on.

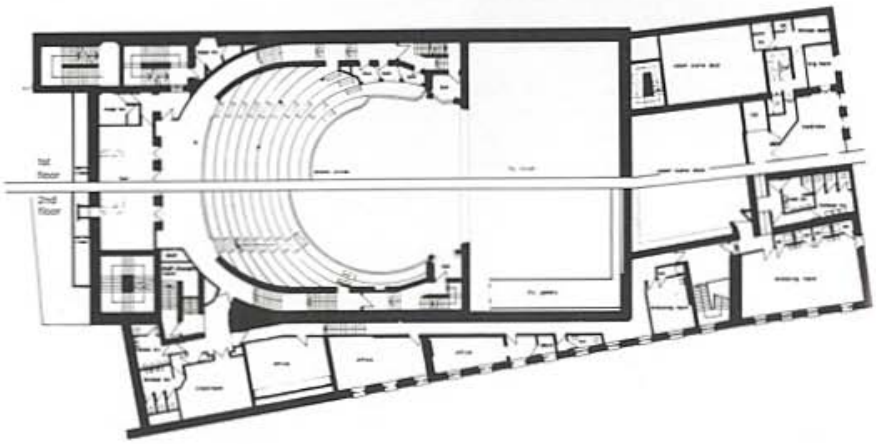


Theatre Royal, Glasgow — *Section through auditorium.*



Ground floor plan.

Metres
0 5 10 15
0 10 20 30 40 50
Feet



First and Second Floor Plans.

The reconstructed auditorium realised in the 1890's style.

(3) The area at the back of the auditorium on each level, which was previously screened, was to be opened up so that circulation areas would feel more spacious and the bars which open on to these spaces seem more generous.

Although the second approach would have been valid, we felt that to produce the clarity and distinction of a modern design would only have been possible with a greater time scale, and much more money than was available.

The auditorium design was studied and expanded in style and the front of house areas, that is the bars, foyers and the staircases, were designed as an extension of the auditorium aesthetic. The dressing rooms and working areas were all designed in a simple way but consistent with this approach. We were committed, together with our client, for a contract to start on October 1st, and for the opening night on October 15th, 1975. Having produced a vision in the Spring of 1974, of what we wanted to achieve, our greatest problem was to hold that picture intact while making radical changes at a later date in the building programme. The problem was described by one of our colleages as "trying to hold a half set jelly in one piece through a year of very bad weather". However, the original design by Phipps proved to be rigorous enough to set the Arup Team on a very logical journey through a set of design decisions which we followed right through to the colour scheme.

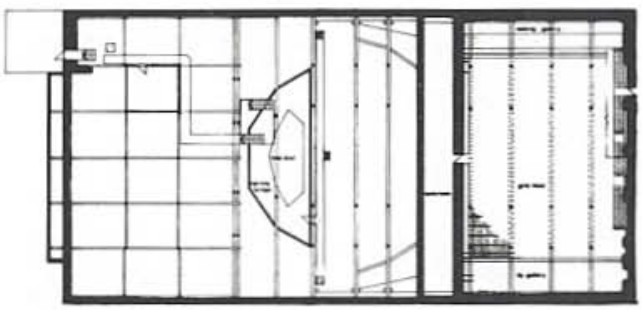
In the original scheme design report, it was hoped to form a large foyer by extending it into the adjacent Public House. The Opera Company were unable to buy this Public House and so a new approach had to be taken. The whole of the entrance area was demolished and reconstructed and then remoulded within the idiom of the late Victorian auditorium interior. The actual space for the foyer was very limited, the main foyer area being only 6 m square and the total ground area, including the staircase, 6 m × 13 m.

By use of a highly formal space and mezzanine levels in the staircase, a "trick" of space is created which is Victorian in its "conceit" being grand in idea and miniature in scale. The detail is invented within the context of the rest of the Theatre.

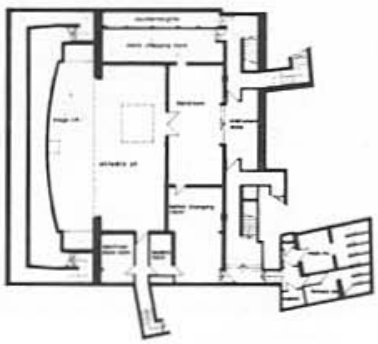
The aspect which has most destroyed the atmosphere of the Victorian Theatre is the insensitive intrusion of modern techniques into stylish public areas. Mechanical and electrical services, and particularly modern lighting systems, are the worst offenders. We were determined that the whole of the mechanical and electrical lighting installation would be installed within the disciplines of the interior and so conserve the architecture of the space and not become its master.

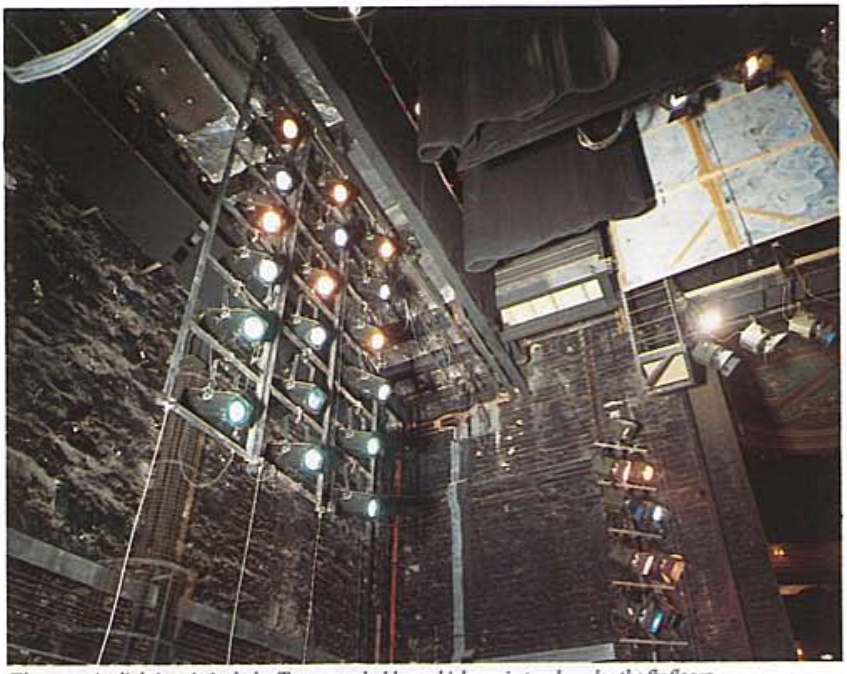
A decision was taken not to air condition the Theatre, mainly on the grounds of cost, but also because we felt an adequate scheme could be achieved by mechanical ventilation. The original scheme design envisaged the plant-room and main air handling plant in the basement of the pub. One of the greatest threats to the programme was the complete redesign of this area and the decision to relocate the plant-room at ground floor level in the light-well only a week or so before the contract started. The mechanical ventilation system supplies air through plenums over the false ceiling in the corridors and is distributed through holes in the auditorium walls which are concealed by a new plaster cornice. Extraction is effected through the

Roof Space and Grid Plan.



Basement.





The extensive lighting rig includes T-spots on ladders which run in track under the fly floors.

The dome contains a lighting bridge which is hidden by a fibrous plaster trap door which is lowered when the houselights are on.

The foyer (seen from the mezzanine) is a completely new design.

bars at the rear of the auditorium and the existing natural exhaust system from the centre of the dome was redesigned and reconditioned. Heating in other parts of the Opera House was provided with traditional radiators on a low pressure hot water system.

Following a decision to avoid intrusive opera house lighting on the balcony fronts, the dome was reconstructed with a hinged section to allow the siting of the front of house lights within the roof space. The springing of the dome was extended on both sides to provide spaces for follow spots. A system of lighting bars was judiciously planned as an extension of the gallery handrail, and lighting bars were provided on the soffit of the second circle slips and facilities provided within the stage boxes.

The whole of the auditorium lighting was in conduit or in "pyrotenax" and traditional brass lights were chosen for the interior. Some secondhand chandeliers of the period were found and restored before being used in the foyer.

At the rear of house, electrical and mechanical services were run on the surface above a strong picture rail or cornice which defined the habitable height of the room. Below the picture rail, the space is kept as free as possible of services.

Apart from the disciplines we set ourselves in realising the design, some of the major constraints on the replanning of the theatre arose from meeting normal statutory requirements, particularly those for fire precautions, protection and means of escape. The fire master and master of works agreed to the principle of retaining some structural elements which did not comply with present day regulations but required the means of escape to be improved to modern standards. To meet the new requirements, an additional escape corridor was provided along the east side of the theatre on land that remains in the ownership of Scottish Television. The whole of the backstage area and rear of house, together with the orchestra pit, has sprinkler protection. Apart from formal applications under the Scottish Building Regulations, formal applications had to be made to the City Planning Officer for change of use, i.e. from a studio back to that of a theatre; for alterations to the external elevations and for alterations and extensions generally.

Despite many crises, work started as planned on 1st October 1974, but without the Contractor having all the theatre available to him. It was not until December 17th of that year that Scottish Television finally left the scene. Although during the design period we spent some six weeks in surveying the building and producing measured drawings, we had no opportunity, due to the presence of Scottish Television, to examine the structure in detail. As soon as demolition and clearance work started in real earnest, we found that the building was made of a particular type of Victorian rubbish, much of which defied the imagination.

Our new ventilation scheme required the piercing of the north wall in many places and we had some very frightening moments during the reconstruction.

First circle crush area which was opened up to link to the auditorium and bars.

When we came to examine the fly tower in detail, we decided to remove the fly galleries and loading galleries and provided completely new structures and equipment. The only structure retained was the timber grid which spanned between the bottom ties of the queen post roof trusses and was in very good condition. On close examination, we found that the rear wall of the fly tower was bowed by some 18 in and showed signs of distress, particularly in the south east corner. The wall was repaired and a wind girder was inserted to provide restraint at the grid level. When cutting through or fixing into existing structural walls, we found it necessary to make extensive repairs and to provide fixings which extended the full thickness of the wall.

The dress circle, or first circle as it is now called, was propped by four additional columns which had been introduced after the last reconstruction. We presume that these had been introduced to provide not additional support but to restrict the vibration of the cantilevers. Our client was keen that they be removed and after propping the structure, the top boarding and soffit was removed to examine the structure in more detail. Strengthening proved to be very difficult without virtually demolishing the structure but we finally produced a scheme whereby universal column sections were strapped either side of the existing cast iron column and fixed through the bottom flanges with coach screws into the existing timber beams. Both the design and the construction of these balconies gave cause for much concern when the work was opened up and it led to a detailed examination of all the balconies and strengthening with structural steel, particularly in the slips. It was here that we particularly found very poor masonry walls and had to provide fixings for the additional steel through the depth of the auditorium wall.

The scheme for the foyer necessitated extensive demolition and the building of a new structure within the fabric of the old. To achieve the spaces very necessary to the design, main structural walls had to be supported by specially fabricated steelwork during construction.

The effect of this, together with the general condition of the structure, could have been catastrophic but both McAlpines and Arups increased their professional site staff until at peak some ten civil and structural engineers were working on site designing and supervising temporary and permanent structural work.

The effect of structural work particularly in the fly tower, balcony structures and foyer structure, was to condense the programme for second fixings and finishing to bursting point. Visitors to the Theatre in the last month of construction wili have seen plastering, painting, paper hanging and the fixing of brass door furniture being done whilst demolition and structural work was still going on in many places throughout the Theatre.

Many services were commissioned only in the last few days and on the opening night amongst all the glitter I presume the audience were unaware of the floods taking place in the artistic director's room and the band room lavatories.

It took the talents, skills and sustained efforts of many people to make it all possible. When we look back, especially to the last few months of the contract, the tensions developed were at times almost unbearable but despite these it is doubtful if we will ever repeat the euphoric atmosphere that developed with Scottish Opera, McAlpines, John Wyckham Associates and Arups working together.

The author is a Partner of Arup Associates and, together with many others, was responsible for the design and supervision of the conversion of Theatre Royal into a home for Scottish Opera.

He was also responsible for the design of Snape Concert Hall.

The mirrors at high level in the foyer give an illusion of spaciousness in a very small space.

Stalls crush area showing the use of second-hand gilt mirrors and the wall finishes.