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THEATRES AND MULTI-PURPOSE HALLS - THE CONTEXT

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The phrase "Multi-purpose Hall" is a new one and represents an unfortunate concept indicating as it does that there is some breed of hall capable of fulfilling all a community's needs in perfect equity. What a godsend this concept must be to hard pressed city councils seeking a home for activities as wide-ranging as concert performances, amateur and professional drama, bring-and-buy sales, civic dinners and of course the Mayoral Ball. It is a concept that appears to have arisen with the growth of the technological age and the confidence amongst society in general that technology could solve every problem. Architects, acousticians and theatre consultants have been flattered into believing that our ingenuity will, this time, result in just such a perfect building. Time after time we have proved how difficult (or insoluable) the problem is.

Before the last world war almost all halls were designed for a specific function (concert hall, market hall, etc) or for a specific role (village hall, town hall etc. etc.) which defined their architectural and social range more tightly than we can form a brief for a multi-purpose hall today. These halls were always designed to support one activity well and other activities only because there was no other special provision available. Until quite recently the choice of a name for a project would define its primary purpose, the building's shape and even its decorative style. Who today could be as certain of the appropriate design for a "multi-purpose hall"?

Yet we should be more certain for throughout our history man has built halls for multi-purpose use. In the dark ages in Britain the central feature of an established village was the hall used for meetings, dinner, dance, music, verse, story telling and any other community activity. These were rectangular buildings with pitched roofs giving inclined reflective planes within the room. Until the middle ages they were our only room plan and shape and are still built today in innumerable church halls and, more attractively, in the Maltings at Snape.

The first real change in the mainstream of our halls began with the revival of classical architecture and the re-birth of the plaster ceiling, the earliest surviving example being the Banqueting House in Whitehall (note that the name conveys no ambiguity of purpose yet this room was always intended for masques and musical events as well). The rectangular section in a rectangular plan was to form the basis for halls until the beginning of this century and of theatres with only minor adjustments for almost two hundred years until the development of the horsehoe auditorium. Theatre people being both poor and pragmatic adopted the plaster ceiling for an auditorium to give acoustic reflections within the cheaper pitch roof and used the plain pitch over the stage to store scenery. The first two theatres after the Restoration being tennis courts converted to theatre use - again the multi-purpose principal but not the name.

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The division of public auditoria into flat floored halls and raked seating theatres allowed more specialisation in stages. With a proper theatre in the town the hall could be designed without a stage or with only a shallow platform. Halls began to be built with a steeply raked choir stalls to meet the increasing choral and band traditions of the industrial cities. In this century as such activities became less important in the community and professional entertainment took over we get the kursaals, often with a tiny band stage on one side of the hall. These led to the first cinemas and finally to the almost platformless, acoustically dead, cinema auditorium of the thirties and forties. This is one of the roots from which the modern multi-purpose hall draws its inspiration.

Meanwhile the theatre became more specialised with the development of bellshaped, horseshoe and fan-shaped auditoria. The stage became less the setting and more the home for the actor and towards the end of the last century the fly tower was created. The increasing technical sophistication of the stage counterweight flying, power lifts and safety curtains, has a part to play too in our current brief for a multi-purpose hall.

This then is the basis on which we founded our post-war multi-purpose hall designs. Halls themselves drew form and acoustical design from cinemas and yet sought to provide some of the facilities of the fully mechanised theatre, all in Festival of Britain architecture. The world of the acoustic tile, plywood decorative panels and off-white plaster planes, concealed lighting and maple floors. Dozens of examples exist, almost all being totally characterless, acoustically problematic and depressingly lifeless. Only in recent years have the words "civic hall" been perjorative; the Victorians adored their often vulgar encrustations of colourful plaster work whilst the age of reason admired and criticised its more delicate examples. To my mind this is the measure of our failure in architectural and technical design today, nowhere more clearly expressed than in the civic multi-purpose hall. We do not enjoy them, we visit them with a view to enjoyment but the building is not thought of as enjoyable or indeed relevant, just a covered space to put the event in. With all our experience why can we not get better results?

In practice the most serious problem in multi-purpose hall design is the flat floor versus raked floor, or the mechanical means to move from one to the other. In some cases the client is really looking for a theatre with occasional and less important flat floor functions. If the theatre is designed with appropriate foyer space for today's audiences then the foyers are likely to have sufficient space for dances and cabaret work and will have the bars and serveries required for this type of event. This allows the creation of a permanently raked and seated auditorium which can be used for rehearsals whilst entertainment continues front of house. The Alderman Beck Hall in Hillingdon is an example of this approach. Here the brief was to copy the 450-seat Winston Churchill Hall of twenty years before. The hall is low and designed with a short reverberation time for speech with an electro acoustic system to give it a longer reverberation time for orchestral and brass band work. Whilst the exterior of the building has a certain attraction, the interior lacks character and acoustic colour whilst the acoustic isolation of aircraft and plant noise in massive concrete enclosures meant a very expensive building. Unfortunately this has diminished its achievement for it is in many ways an attempt on a small scale (up to 600 seats) to meet the same brief which North American consultants meet in

their two-thousand seaters.

Other ways of creating raked seating and flat floors are the increasingly widely used bleacher seating and the rarer mechanical alterations to the floor. Bleachers were imported from the North American sports halls and in theory allow the creation of a raked bank of seating on a flat floor. However they do so at considerable cost, the cheapest being about £50 a seat place (without the seat) and the most expensive up to £110 (without a seat). They are best designed as rectangular blocks and to store in the retracted position. Moving them about when retracted is cumbersome and produces very high point loads in the floor. The sides of the units when extended need masking unless they can be brought out close to parallel walls. Drumming and creaking in the units can be a problem and in larger rooms the change in useful volume can become apparent.

The mechanical movement of floors can be quite simple as at Gravesend's Woodville Hall where a section of the auditorium floor is carried on floor jacks which can be lowered to give a 1 in 10 rake towards the permanent stage with its full fly tower. There is also a balcony and fixed rear seating on tiering. This hall for 750 has no acoustic variation but its volume is high and it is towards the upper limits of the speech acoustic. Like every other multi-purpose hall the expectation is that all speech work will be through microphones. Variety, pantomime, public meetings, after dinner speeches, cabaret, are all miked nowadays, leaving classical music and the all too occasional play to make themselves heard without. On a grander scale the Wessex Hall of Poole Arts Centre has a permanently raked seating arrangement carried on a massive floor lift to move about 750 seats into store under the stage. This room is for classical music, pop, major variety shows and dances. The hall with its balcony seats some 1500 people and there is a theatre for 700 alongside and other flat floored rooms.

Few of our true multi-purpose halls exceed 500 audience capacity (about 300 for banqueting and 400 for dances). Almost all have a stage but often this needs only the very minimum of suspension systems for curtains, and a relatively small size for amateur dramatics use. However there may be a number of amateur operatic companies in the area and they require much more space and an orchestra pit. Once there the stage will be used for dance bands, choirs and all manner of other activities in which sound may be constricted by the shape of the stage and its isolation from the hall itself.

Only one or two projects in design at the moment consider the multi-role aspect of auditoria for opera/ballet and orchestral music. Some of them such as the Wessex Hall are proscenium stages with orchestral shells. One or two begin with an orchestral platform whose ceiling slides back to reveal a fly tower with a temporary proscenium framing in the platform width to give a stage. None have been built so far here but the variation sought is similar to that achieved with much hard work each year in the Royal Festival Hall.

For most of use in these days of economic restraint however the majority of our work will be the improvement of existing (town hall, kursaals and other) halls. Recently I worked on a project in which the architect proposed to turn a neo-gothic Victorian town Hall into a Festival of Britain civic hall - plywood panels, false ceiling, "modern lighting", destroying the whole character of the room

and offering instead a dull visual environment with the acoustic excitement of a domestic sitting room. This denies the whole essence of any auditorium or function room (as opposed to say a conference or business meeting room). Clients are aware of the visual impact of a room but rarely of its acoustic impact. Behavioural psychologists have carried out a great deal of work on the way colour and texture effect our perception and emotional receptivity to a performance yet I know of very little work on the effect of the sound "temperature" of a room.

We talk these days with much learning of reverberation time, first reflectors, intelligibility indices but do we consider the important emotional reception of the sound. Should we not match say a high ceiling Victorian room with a longer reverberation time, should not terms like "the auditorium's ring", its "charm" and its "presence" become our guiding principles so that the events taking place in our halls have a matching acoustic sense of event. We do not need the perfect clarity, the easily intelligible, the contained and disciplined sound - we can have this in our own homes by using television or hi fi. Intimacy is for the domestic scene, public events should move us because of their scale and the unusual impact of sight and sound. The low ceilinged absorbent theatres and halls of the last thirty years have to my mind been a blind alley. We are now discovering the glories of many of our older buildings in visual terms, I hope we will seek also to understand and enjoy them in acoustic terms also.

I have worked in a very minor capacity in each of the three arts buildings on the South Bank in London, each of which relies to some extent on electro acoustic adjustment. This seems to me an indictment for it indicates dismissal at an early design stage of the creation of a characterful idiosyncratic auditorium preferring instead to ensure that the natural result will be a flat and contained sound which we can extend by electronics under "laboratory" like conditions afterwards. I hope in the future we will learn to love our multi-purpose halls for their acoustic differences, for their stronger colourations as people admire churches and their organs. Flanders and Swann might have been commenting on our approach to some hall designs with their song "at a flick of a switch, at a single touch, I can make Caruso sound like Hutch".