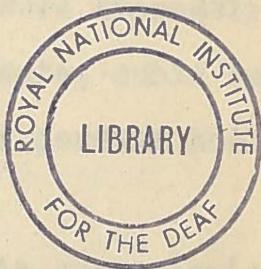


ON DESIGNING CHURCHES AND INSTITUTES
FOR THE DEAF AND DUMB

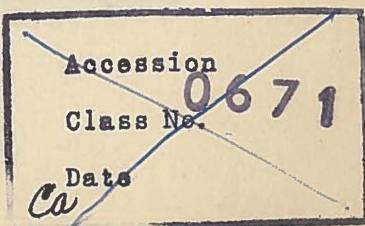
A Paper read to the Quarterly Open Staff Meeting of
The Royal Association in Aid of the Deaf and Dumb.

October 16th 1946.

By
Frank Goodridge



B 5802 (REF)



ON DESIGNING CHURCHES AND INSTITUTES
FOR THE DEAF AND DUMB

"The Eye for the Ear, the Hand for the Tongue"

Preamble:- To claim special qualifications for this subject would be presumptuous; but on the strength of thirty years' very close contact with the "deaf and dumb," - almost, I might say, as one of themselves, I consider that grave defects are apparent in nearly all buildings which were expressly designed for their use; and that these defects, could in the main, have been avoided if educated deaf persons had been consulted.

As a basis for my observations I give in chronological order a list of Churches and Institutes in which I have been both a member of the congregation, and a speaker:-

St Saviours' Oxford St., ..	1917 - 1924 ..	7 years
All Saints' Paddington	7 years
St Saviours' Acton	5 years
St Mellitus, Southend-On-Sea	1936 - 1939 ..	4 years
All Saints' West Ham ..	1939 - 1942 ..	3 years
St Barnabas, Deptford ..	1942 - 1946 ..	4 years.
N.I.D. Lecture Hall		

I have also visited the following "deaf" Institutes:-
 Lincoln, Leicester, Blackburn, Liverpool, Northampton,
 Cambridge, Salisbury, Southampton, Brighton, Nottingham
 and Derby.

Certain opinions, amounting to convictions, have come to maturity with me, so that my listeners will once again twit me with 'a deaf man's dogmatism.' Let it be so - I shall be proud of it, especially if I help my fellow deaf to obtain premises where certain fundamental facts are always borne in mind by the designers or architects.

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Before attempting to analyse and tabulate my convictions, there will be no question even from those who will disagree with other points, that it is of the utmost importance continually to remember-

"The Eye for the Ear, the Hand for the Tongue."

It is because this basic and fundamental fact has been neglected, misunderstood or ignored, that buildings erected at great expense especially for the deaf and dumb are proved failures, and adapted buildings unsatisfactory.

A building or a Church may appear beautiful, aesthetic, and correct at first sight to a normal person, only to prove just the opposite when examined and tested by the eye alone.

The fact, then, cannot too often be stated that any building for the Deaf and Dumb must be so designed or altered that the "eyes" have it, and have it in ophthalmic comfort.

What this comfort entails, appears to me to be as follows:-

(1) No windows whatever should be in the direct line of sight of any person sitting in the "nave" of a deaf church, or in any hall used solely for lectures and classes.

In adapted buildings every effort should be made to obliterate any window infringing this rule; because if it is not done, the average deaf person, particularly those with defective eyesight, will find it impossible to concentrate on the signer or speller.

(2) Even windows which can be seen "out of the tail of one's eye" should be avoided if possible, though this may be difficult in the case of adapted buildings.

(3) The best light is daylight. Therefore the architect should so design his windows that artificial-light is not necessary normally in daylight hours, and this means that-

(4) The brightest part should be the rostrum or part where the speakers habitually stand, or from where the services are customarily taken.

Note:- The Alter of a Deaf Church should NOT be the brightest part. If it is, a serious mistake has been made.

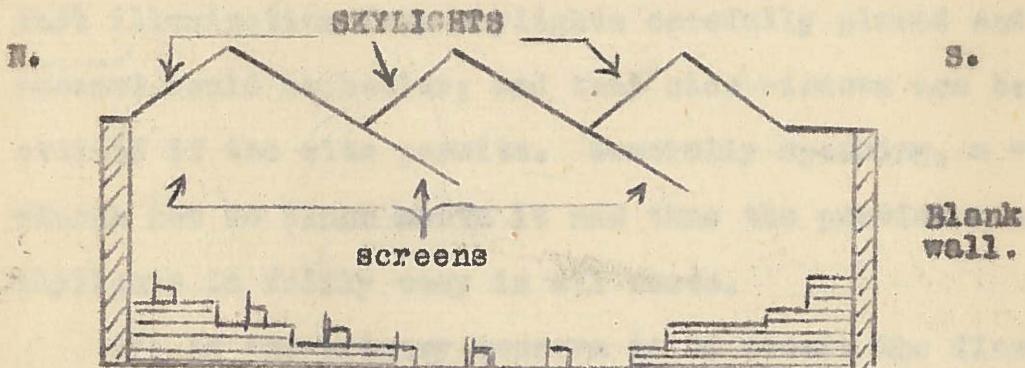
(See later note).

(5) The customary orientation of churches, i.e. congregation facing east, is useless in a deaf church, and for this reason:-

The finest light is reflected light from the North.

Therefore the congregation should face South, bearing in mind that the South wall will be windowless.

This rough elevation shows the idea-



In factories this is well-known, and in my former trade, of gold and silversmithing, the finest smiths always had the North windows; and that not twenty-five or fifty years ago, but from time immemorial. It was known to St Elmo and to medieval goldsmiths that "fenestris borealis," was the window. This point can be regarded therefore as well-known, but not understood or made use of by the "powers that be."

"Sunbeams searching all the day" are not pleasant, however romantic they may look in "hearing" churches.

Of course, local circumstances, particularly the position of the site and the nature of the immediate environment may cause difficulties. but in the case of a new structure, the premises should be erected on that N. & S., principle as one of primary and fundamental importance.

(6) It is a debateable point whether zig-zagged side walls with windows on the same principle as factory skylights would be better than skylights only. My view is that illumination from skylights carefully placed and ~~screened~~ would be better; and that side windows are better avoided if the site permits. Generally speaking, a "deaf" church has no floor above it and thus the provision of skylights is fairly easy in all cases.

(7) As the primary concern is to obtain the finest daylight illumination possible on the pulpit and rostrum without light getting into the eyes of the congregation, the photographic test is a legitimate one.

This test to be valid, must be carried out AT THE SAME HOUR AS SERVICES ARE NORMALLY HELD and consists of taking an ordinary photograph, and printing it direct without any screening. Such a photograph will show which parts of a church are brightest.

I have been able to conduct the test at Old St Saviours, Paddington; New St Saviours, Clapham; All Saints West Ham; and at Southend. The results were such as to bear out the visual criticism of all these places in each case, and the alleged defects will be mentioned later.

(8) Size of Deaf Churches This point is perhaps one on which a big difference of opinion can be held, and naturally a church in a small town situated in an agricultural county would not need such a large building as that of a town though small in itself yet which has an industrial environment. My view is that a "deaf" church should be essentially homely and cosy.

Arguing from my experience, I would say that in London, and in all towns with more than 500,000 hearing population, a "deaf" church should seat not more than 100, with an average capacity of 75. An important psychological truth comes into play here, in that a small church in which fifty looks a crowd, causes the deaf to feel encouraged, and to speak of a 'full' church. On the other hand a large, high building has the opposite effect, and would need a very keen personality in the Chaplain to counteract a decline.

At Deptford a consistent average of fifty for the past four years would tend to clinch the matter of size for any new S.E. London Church, and I shall consequently ask for it to seat not more than one hundred. As to length and breadth - we again enter into debateable matters; - but the architect MUST be made to realise that the congregation has got to see the lips of a preacher in comfort, and a distance of more than fifty feet from the farthest seat to the altar appears the limit, to my way of thinking.

A fairly wide church, say, some feet less than the length, would seem to satisfy most demands. Excessive height, or, indeed, any great height is quite uncalled for in a "deaf" church, and for three reasons:-

- (a) It detracts from cosiness.
- (b) It adds greatly to the cost of lighting and heating.
- (c) Skylights are more effective from a low roof.

(9) Seating and Floors These should be planned scientifically in the same way that seating is planned for a cinema, so that every seat has an unobstructed view of both the pulpit and altar. I am not personally in favour of a sloping floor, which is associated in most minds with the cinemas, but it is used in some "deaf" churches and if carefully designed might be an advantage. As I advocate small and cosy churches, a sloping floor might well be deemed unnecessary.

Perhaps the best method was that used in Old St Saviours, Oxford St., when on a level floor, the three or four rear rows of pews were stepped on platforms.

Fixed seating seems called for, but whether chairs are better than pews I cannot say. Pews have advantages if of decent width, but some pews are most uncomfortable. Tip-up-seats, whether upholstered or not are, I feel, best left out of calculation. We do not want to ape cinemas or concert halls, and the moving parts as well as the upholstery, need constant repair and attention.

(10) Interiors and Colour Schemes. As a medievalist, naked and unashamed, and as one who deplores the loss of old St Pauls and who thinks more of Southwark Cathedral than the new St Pauls, I plump for a simple Gothic style; but more than that, such a style is still associated in the minds of the deaf with religion. It does help to differentiate a church from the average ferro-concrete secular structure, and therefore has a value. But of whatever style, it should not aim at making an impression of size. The contrary is to be preferred. Cosiness in the colour scheme is desirable, and I consider that Gothic achieves both cosiness and a religious tone.

THE ALTAR. This should be on the highest place in the church, but not too high. Ample space should be a sine-qua-non in front and at the sides, and there should be no cluttering up with rummage. It should stand out, and be made to look what it is - the chief point, the ^{focus} force of all that the Church stands for.

However, to design windows to illuminate the Altar is a mistake, because any part of a "deaf" church which is more brilliantly lit than another by daylight is a distraction to the eye; and in this case would come behind the preacher, and constitute a very serious defect.

The Altar should be completely visible from any seat in the building, and what is more, should also be easily seen

by any person kneeling. (This point is important and ignored or unknown to architects of "deaf" churches).

The Pulpit or Rostrum should not be too high, a rise of 3 feet is about right, anything higher causes wry necks; and these positions, as previously explained, should be the most brilliantly lit portions of the church.

Colour Schemes. My view is that the finest colour scheme is that obtained by using natural wood, preferably oak, as a background. On this, which is to some extent neutral, a reasonable amount of rich colour can be used without causing visual difficulties. Failing this, and I realise that it would cost money to use wood, a dark dado is essential. A sombre pastel scheme, to me would be deplorable, the deaf person only has his eyes, and a cheerful scheme is called for. The psychological effects of a scheme are very profound in a deaf church.

(11) Artificial Lighting. There will probably be no question that electricity is better than gas, and the new neon tubes offer untried possibilities. Common sense will be the best guide as to position, and of course no source of light should be visible to the congregation.

(12) Halls. An entirely different set of circumstances comes into play here, with perhaps the exception that the platform should be carefully designed and without any windows either at the rear or at the sides.

In large cities, the height is important for two reasons:-

- (a) Ventilation
- (b) Badminton and Gymnastics.

It may be said that the higher a social hall is (within reason) the better. Anything less than 14 feet would be a mistake.

The position of the various other rooms and offices can only be determined by local circumstances and the amount of money available!

(13) The Lighting of Social Halls is important, but where a hall has to come under a church, it is impossible to attain the "ideal" and a compromise has to be made. Ideally, the writer considers a skylight to offer the best means of lighting, especially on the platform. In any case either by day or night, no stint should be made with lighting. Deaf people need consideration for their eyes much more than do hearing people, and if a hall is badly lit, it gets a bad name.

(14) Cinema. All Halls in the larger towns should have provision for showing films. A permanent roll-up screen and a proper projector-room and/or electric points should always be incorporated.

(15) Cupboard and Storage-Space. These should be ample and far in excess of what is ordinarily provided. Built in batteries of cupboards are desirable and doors should be of great strength and durability.

Steel sliding-doors might offer a solution.

(16) Heating Systems. My enquiries go to show that electricity while most convenient is unfortunately most expensive, unless current at $\frac{1}{2}d.$, a unit can be obtained. Gas has been tried by some and is found to have serious defects and dangers, as well as being expensive.

The writer still considers that a coke-fired boiler heating water tube radiators is the best.

In a large building the use of regulators and cocks for turning off heat from one section to another is worth trying. Automatic coke stokers are too expensive for a small building. I suggest that if electricity could be obtained at a cheap rate, the immersion-heater system in the radiator circuit would probably be as near our ideal as obtainable; because it would do away with all stoking and purchase of fuel, and would enable us to have automatic temperature control by rheostats.

Comments on Existing Buildings

I would like to make it clear that in the following comments I purposely emphasise the alleged defects. The good points are nevertheless, well understood.

St Saviour's' Acton and St Bedes' Clapham.

The Churches are too high by 10 feet or more. The windows are wrongly placed, and the pulpits instead of being the most brilliantly lit portions, are about the darkest.

windows by the Altars are serious mistakes and provide pools of light behind the speakers.

The impression of great size seems to me a serious defect which has deleterious effects on the congregation. In these Churches a sense of cosiness and homeliness is apparently impossible on account of the great height and bare walls.

The Social Halls are too low by 6 feet at least, and slightly too small. Official Badminton cannot gominely be played.

St. John of Beverleys' Green Lanes.

The Chancel platform is too high by 2 or 3 feet, and the Choir Stalls running parallel to the nave and at 90° to the pews would appear difficult to see.

Probably the general proportions are right and the Church is " very easy on the eyes."

St. Mellitus, Southend

This building is the newest under the R.A.D.D. and consists of a stock-pattern hall with steel roof-trusses. The architect refused to adapt the lighting to " deaf " needs and consequently the windows are too small and the skylight is in the wrong position, making the platform dark.

This is a case where valuable chances were missed because of an obstinate architect! For a small centre, the accommodation provided can be considered quite adequate and the cost of maintenance is low.

All Saints' Croydon.

It seems almost incredible that a tiny Hall-cum-Church of this size could have been considered adequate in the first place. A new Hall is now erected.

The windows are very small and as there are no sky-lights, this building standing in open ground, is very dark. The writer cannot understand this at all, and suggests that Mr. Sweetman should raise certain "nether regions" and get this rectified later on.

Considered as a Church only, the space available seems right.

St. Barnabas, Deptford.

Built 1882 on a long narrow leasehold site, only 14 feet wide. It was not meant to be a church for its whole length, except on special occasions. Curiously enough this building has North and South orientation, but the congregation face North!

Daylight illumination is hopeless and was never considered from a "deaf" point of view. With powerful electric lights and hidden gas burners, the Church is very easy on the eyes, but expensive.

So badly planned was it, that the Altar has been raised twice so that the congregation could see it. Even now only two-thirds of the seats give a view.

St. Barnabas's redeeming feature is its homeliness and cosiness, and this helps to keep up a good congregation.

Adapted Buildings

All Saints, West Ham

Lucky enough to be correctly orientated for the deaf, i.e., the congregation sit facing South and the South wall is blank. Reflected light from the North makes this church very easy on the eyes.

The size is about right and fifty people look a crowd, but the platform is too low by at least a foot and too shallow in depth. Given these improvements, this church might be taken as a model for size, orientation and seating. It is however, too high for cosiness.

All Saints' Paddington

As a "hearing" Church it has merits. As a "deaf" Church the only merit it had was that the lighting was good and the pleasant background of padouk wood and pink pillars was one which did not hurt the eyes.

It is too vast as it stands and the writer considers it should have been completely cut in two by a partition.

Provincial Churches

Northampton

This is an adapted school and suffers from lack of planning. The natural lighting is very fair, and the size about right, though it might be smaller with advantage.

Leicester

This Church is too much like a Congregational Hall to

please me, and the lack of colour seems to me a mistake. The general impression is one of drabness. The size is right and so is the lighting, judging by 1920 standards.

N.I.D. Lecture Hall.

This Hall, one of the latest and most expensive to be built for deaf use, is about the worst place of which I know for a deaf person to watch a speaker, and for these reasons:-

(1) The skylight runs along the roof lengthways, but stops about ten feet from either end. This means that the 'audience' are in a strong natural light, but the platform is dark.

(2) The room is lit artificially by means of reflected light on the dado top rail. This causes the speakers to have light thrown on their backs and none on their faces!

That such mistakes could be perpetrated in a Hall built for the Deaf leaves me astounded.

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Summary of a paper on Special Building Requirements
for Churches for the Deaf and Dumb to be
given by Mr. J.S. Stedman on October 16th, 1946.

First Session

Introduction

- a) Family Atmosphere.
- b) Maufe's paper read to the R.I.B.A. 1935 extracts four and five.
- c) Bishop of Southwark in seconding.

Light Lines

- a) On plan.
- b) chairs
- c) in long section.
- d) in cross section.

Daylight

- a) Sir Giles Gilbert Scott summing up.
- b) on plan.
- c) on section

Unlight and its control

- a) Maufe's vital error for Deaf church building.
extract one. Note contrast to Sir Giles.
- b) Baffles.
- c) Screens.
- d) Blinds and louvres.
- e) Colour.

Artificial Lighting.

- a) Point sources, high intensity.
- b) Indirect.
- c) Direct, low intensity.
- d) Shadows. Maufe's paper, extract two.

Colour

- a) Advancing, and retiring.
- b) Pleasure, texture, richness.

Ornament

- a) Static signs.

Summary

Object. Shape, size, colour, texture.
Absorption and reflection.

Vehicle. Daylight, Sunlight, Artificial light.

Organ of vision. Perspective, illusion, stigmatism.
Colour blindness.

Organ of interpretation. Relative, past environment.
Association of ideas. Future perception.

Summary of a paper on Special Building Requirements for social centres for the Deaf and Dumb to be given by Mr. J.S. Stedman on October 16th, 1946.

Second Session

Planning the whole

- a) The Group.
- b) The full development.
- c) Things to be remembered.
- d) Choice of site.

<u>Planning the parts.</u>	a}	Billiard room.
	b}	Kitchen.
	c}	Table Tennis.
	d}	Badminton. etc.
	e}	Hall and stage.

The special requirements.

- a} Orientation of user.
 - b} Light and sunlight.
 - c} Colour.

Comparisons.

a)	Picture Gallery.
b}	Museums.
c}	Cinemas and theatres.
d}	Village Halls.
e}	Tropical buildings.

Architectural style Quote Markham of Carnegie Trust.
 a) Style.
 Quote Markham.
 b) Requirements.
 Anecdote and moral.

Summary. ACTION. A national survey.

A canon of requirement.

Summary of Paper to be read by the Rev. F. Goodridge
on October 16th, 1946 at St. John of Beverley Institute,
Green Lane, London.

"On Designing Churches and Institutes for the
Deaf and Dumb"

(1) Importance of remembering

"The Eye for the Ear, the Hand for the Tongue

(2) Lighting

- a) Windows - their position.
- b) The orientation of the Building and its relationship to Lighting.
- c) Sky-lights and zig-zag walls.
- d) Photographic tests.
- e) Comments on existing churches.

(3) Size of Churches.

(4) a) Seating.
b) Floors.

(5) Interiors

- a) Styles.
- b) Altars.
- c) Pulpit or Rostrum.
- d) Colour Schemes.
- e) Artificial lighting.

(6) Halls

- a) Necessity of considering their uses.
- b) Lighting.
- c) Provision for cinemas.
- d) Storage space.
- e) Heating.

(7) Some comments on existing buildings.