



Vol. I. No. 4.]

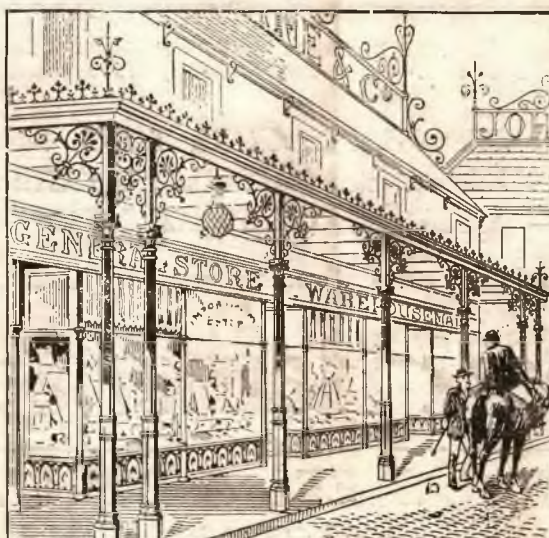
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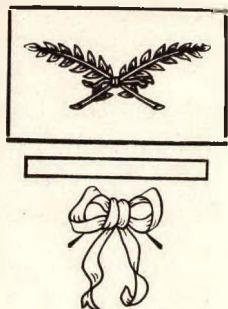
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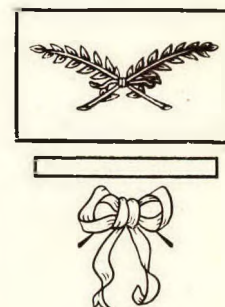
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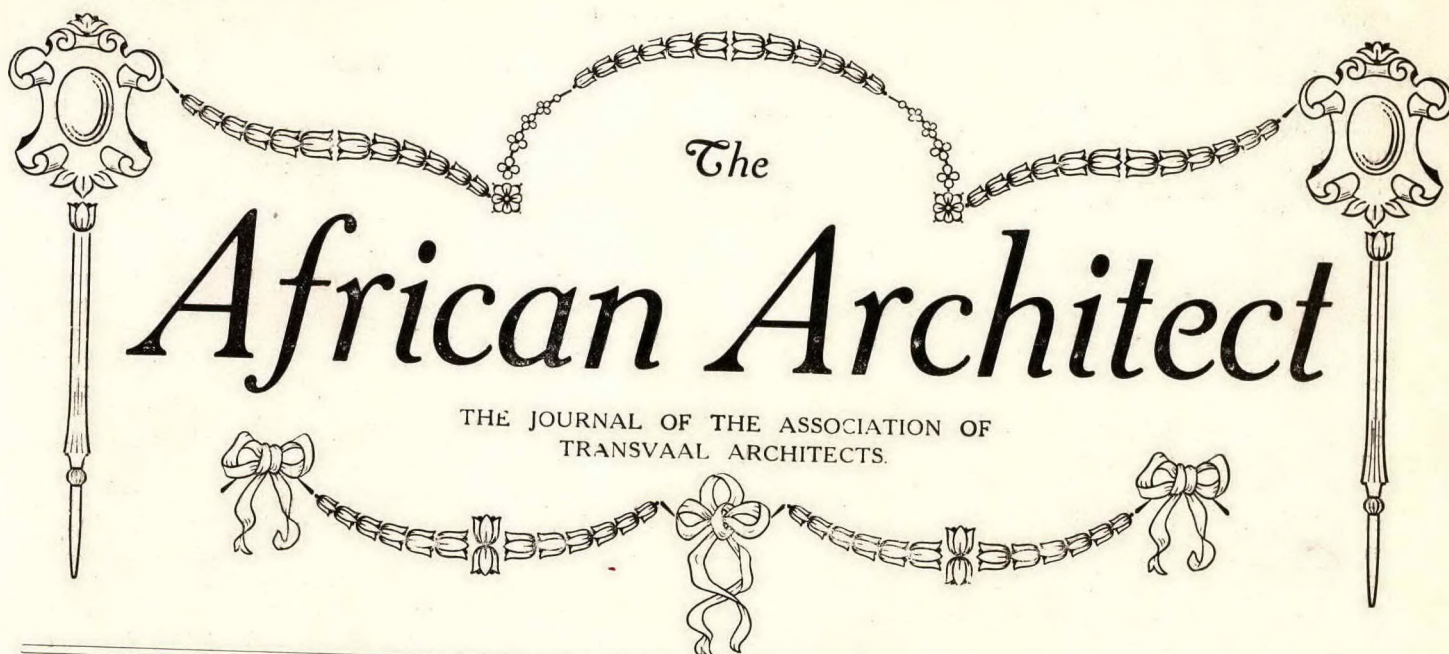
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EDITORIAL COMMENTS.

Building Progress.

We have to congratulate Messrs. Reid and Knuckey upon their having secured the contract for Messrs. Chudleigh Bros.' new building, the tender amounting to £72,750. The girder work was secured by Messrs. Dorman, Long and Co., of Middlesbrough, who tendered for £9,660. The site of the building covers six stands, with 100 feet frontage to Pritchard Street, 200 feet to Eloff Street, and 100 feet to President Street. The premises will be built in two sections, beginning with the south, which will be occupied during the building of the northern section, and the whole will be completed for the coming Christmas trade. The building will comprise a magnificent block, with a basement and four storeys. The basement, ground floor, and first floor will be occupied by the owners, and the second and third floors will comprise suites of two rooms—in all forty suites. The building, it may be added, has a very handsome elevation, and we will refer to it again in a future issue. Mr. J. A. Moffat is the architect.

A further example of the confidence merchants have in the stability of Johannesburg is to be found in the extensive work undertaken in connection with Messrs. Randles Bros. and Hudson, one of the oldest merchant firms in South Africa. Their existing warehouse covers 100 feet by 100 feet, and the intention now is to complete the whole block, including the premises occupied at present by Messrs. Starfield and Starfield. Meanwhile, the work at the corner of Kruis and Market Streets is being proceeded with at a cost of close upon £13,000. When Messrs. Starfields' lease expires, the whole block will be completed, and Messrs. Randles Bros. and Hudson will then possess possibly the largest warehouse of its kind in Johannesburg. The architect is Mr. H. G. Veale, and Mr. A. Gill is the contractor.

Flats.

To meet the demand for residential flats in Johannesburg, the African City Properties Trust are erecting a magnificent building behind Messrs. Norman Anstey's palatial structure. The building will consist of shops with basement, and the floors above with a series of flats. The shops are of large design, the majority of them being about 75 feet by 33 feet; and the flats comprise bedroom, sitting-room, bathroom, kitchen, and hall; while there are a few single flats comprising simply a bed-sitting-room, bathroom and hall. The erection of the building, the contractor for which is Mr. James Thompson, whose tender was £45,000, including excavations, has already been started. The architects are Messrs. Leck, Emley and Dickson.

Australian Capital.

The conditions of competition for this great work have been tried and found wanting. The R.I.B.A. Council have notified the High Commissioner of the Commonwealth that the conditions are unsatisfactory. It is hoped they will be revised and made in conformity with the usual principles adopted in a competition of this kind before it is too late.

Art Gallery.

We are informed that Mr. E. L. Lutyens, the eminent English architect, who has been appointed to design the Art Gallery, has nominated Mr. R. Howden, A.R.V.I.A., M.S.A., President of the Association of Transvaal Architects, as his collaborator with Mr. Herbert Baker, F.R.I.B.A., in his honorary capacity.

King Edward Memorial.

We note with pleasure that Mr. Lutyens has been appointed as architect with Mr. Bertram Mackennal, A.R.A., as sculptor, for the new King Edward Memorial, London. The memorial is to be erected at the Piccadilly end of the Broad Walk in the Green Park.

THE SOUTH AFRICAN INSTITUTE QUANTITY SURVEYERS

The annual general meeting of this Institute was held on Wednesday evening, August 16th, at the Imperial Hotel, Pretoria. A large number of members, representative of the four Provinces of the Union, attended, testifying to the popularity of the Institute, and showing an appreciation of its work for the profession.

Mr. H. A. Adams was re-elected president for the third year in succession; Mr. T. Moore was re-elected vice-president; Mr. J. Cowling, honorary secretary and treasurer; and Messrs. Qual, McCubbin, White, and Hickman were elected to the Council.

The Council's report for the past year was of a very encouraging nature, disclosing an increasing membership and bank balance, and a general enlivenment of the profession throughout the Union and Rhodesia.

Among the subjects discussed at the meeting was the proposed Architects Registration Act and its bearing on the profession.

After the meeting, a paper was read by Mr. N. T. Cowin on "Modes of Measurement," which was followed by an interesting and profitable discussion.

"THE AFRICAN ARCHITECT" COMPETITIONS

As previously announced, we are offering a prize monthly to encourage young students in the architectural profession.

September Subject (Prize £1 1s.)

DESIGN FOR COTTAGE, to cost £750, to include rooms, kitchen, pantry, and bathroom, to be erected on a stand 100 feet by 50 feet, facing east, and near Johannesburg.

Designs to be in before September 15th, to enable decision of judges to be announced in October issue.

REQUIRED: Plan, section, elevation all to scale, eight feet to one inch. Special consideration is to be given to climatic conditions; merit in design in the elevation, and relationship of rooms to each other; position of fireplaces, doors, and windows in the plans.

Judges: Messrs. R. Howden and W. H. Stucke.

General Conditions for the Competitor

(1) All designs to be forwarded to the Editor of "The African Architect," 17 and 18, President Buildings, Fox Street, Johannesburg. P.O. Box 4651.

(2) There must be at least three entries in each subject.

(3) There is no entrance fee. A sealed envelope, with the competitor's name therein, must accompany each design attached thereto, no name or nom-de-plume to appear on either envelope or design.

(4) In every case, though "The African Architect" reserves the right of publication, designs sent in will be the property of the competitor, who is at liberty to place thereon the value for sale, so that the financial return in many cases may mean more to the successful competitor than the actual value of the premium.

(5) Designs must be sufficiently prepaid for return postage.

The competitive designs will be submitted to the gentlemen above mentioned, whose decision shall be final.

LIVERPOOL SCHOOL OF ARCHITECTURE

The School of Architecture at Liverpool University recently held its annual exhibition of drawings, excellent alike in measured work and design. The school, in England at least, occupies a position apart from other educational centres, for the reason that it has what might be termed a definite declared architectural policy. Professor Reilly, under whose direction the present curriculum has been formulated, is of opinion that the haphazard methods which are characteristic of some architectural schools will never suffice to produce good work. He believes in centring interest on one governing style, and developing it consistently. Just as the designs and drawings done in the Ecole des Beaux Arts have one prevailing character, so the work done at the Liverpool School of Architecture bears the hallmark of a modern adaption of Greek forms. Duc, Labrousse, Cockerell, are names to conjure with in this respect, and the great buildings associated with them are refutation enough to any suggestion that the revivification and adaptation of Greek work must over nothing but repetition and deadness.

IN OTHER LANDS**New Chairman Royal Society of Arts**

The Council of the Royal Society of Arts have elected Lord Sanderson, G.C.B., chairman for the year 1911-12. Lord Sanderson has been a member of the society for over thirty years.

Memorial to William Penn

The memorial to William Penn which the Pennsylvania Society of New York has placed in the Church of All Hallows, Barking-by-the-Tower, is a large oblong bronze tablet with a decorative border. It was designed by Messrs. McKim, Mead, and White, New York, architects. The inscription records that Penn was baptised in this church on October 23rd, 1644. The memorial has been fixed to the south wall of the church.

Lady Wins the Prix de Rome

The Prix de Rome for sculpture has been awarded to a lady candidate for the first time in the history of the foundation. The winner of the prize, Mlle. Heuvelmans, is thirty years of age, and is the daughter of a cabinet-maker. She appears to have discovered her talent for sculpture at the age of eighteen, and after studying under MM. Hannaux, Marqueste, and Denys Puech, she competed for the prize for the first time in 1906, and three years later she was successful in obtaining a second prize.

Proposed Mammoth Hotel for London

Mr. Frederick Sterry, of New York, proposes to erect a mammoth hotel somewhere near Hyde Park Corner that is to cost nearly £2,000,000, and is to be run on strictly American lines. Mr. Sterry built and now directs the \$10,000,000 Plaza Hotel, in New York, which is twenty storeys high and covers a square block, which was the site of a hundred houses.



SEPTEMBER 1st, 1911.

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SPECIAL ARTICLES on general subjects of interest to the architectural profession, and photographs, are cordially invited from our readers. Where payment is expected this should be distinctly stated. Special care will be taken of MS., but the Editor will in no case guarantee its return.

LETTERS TO THE EDITOR.—The columns of "The African Architect" are open at all times for expression of the opinions of our readers, but the Editor disclaims responsibility for the views of correspondents. All letters must be signed with the name of the correspondent, not necessarily for publication, but in evidence of *bona fide*, and addressed "EDITOR, 'The African Architect,' Box 4651, Johannesburg."

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"The African Architect" is on sale at Chicken's News Agency, Pritchard Street, Johannesburg.

THE ORGAN IN ARCHITECTURE

A large organ is an erection of such size and importance in a building that it may be regarded as a part of the architectural design of the interior, with which it should be in keeping in an architectural sense. In this respect the consideration of its design comes within the natural province of the architect. The Johannesburg new Town Hall will present an object lesson on this fascinating subject. We reproduce in this issue two famous examples of modern organ building, and they are a practical explanation and description of the whole art of organ construction. We commend these to the Town Council of Johannesburg; and, as we live in the community of big things, let us have the very best in supporting our musical effect on the public mind as it must be represented in the Johannesburg Town Hall organ. Space for the organ architecture should be liberal, for an organ never sounds so well as when it has plenty of open space round it. The organ, to give the best impression, must be of a distinctly architectural and built-up character. The front must be looked upon rather as a decorative screen, which conceals the main part of the interior, allowing some of the principal pipes

to occupy what would be otherwise gaps in the decorative screen. The two methods are very well represented in the two fine organ-cases which we illustrate, both being of late Renaissance date.

STATUTORY QUALIFICATION

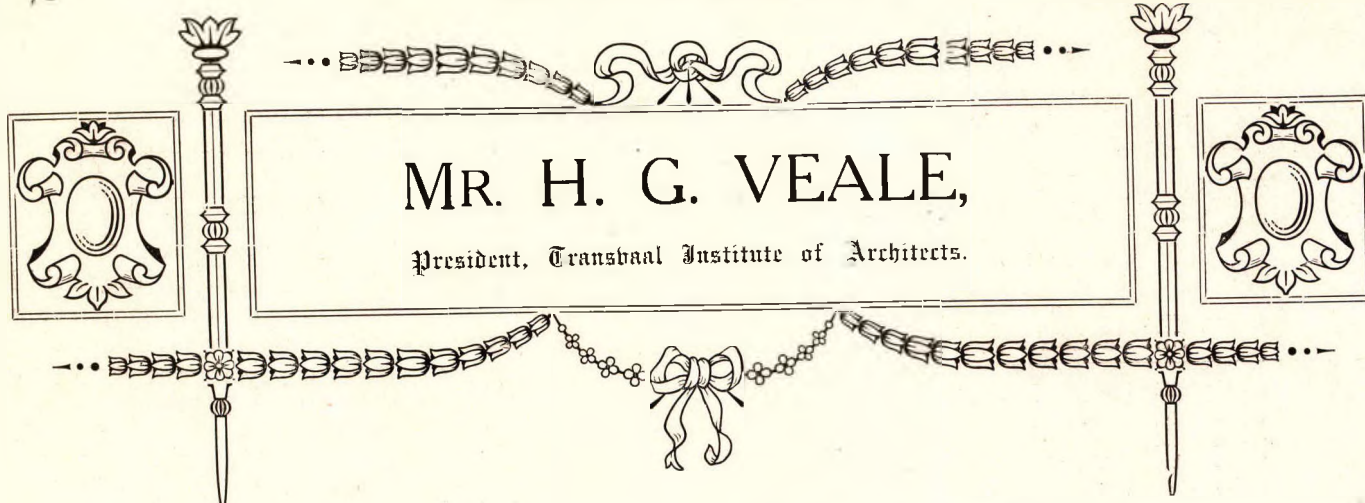
A most interesting conference has recently been held in London by the surveyors of the British Dominions with a view of arriving at a satisfactory basis of reciprocity and a uniform standard of qualification. It is to be sincerely regretted that the architects throughout the British Dominions are not sufficiently advanced in their several registration schemes to hold some such conference and so arrive at a reciprocative understanding. Apart from the advantage of reciprocity, the fact that so many legal obstacles present themselves at every corner, it is especially necessary that the best and most experienced talent should be obtained in dealing with this question.

DRAFT ACT

The Cape Institute are now considering the final amendments suggested by the Council of the Transvaal Association of Architects, which, when approved or otherwise by them, the whole matter will be placed before the members of the Association for their final approval before presenting same to Parliament. We understand the chief difficulty of a Union Bill has been that there must be a Union head, and of necessity such a question must introduce a little friction. This it is hoped will be obviated by adopting the principle of federation rather than Union, and empowering each Province with local powers to deal with all matters of a local nature, and only where absolutely impossible to deal with matters locally, to make such matter a Union question.

GREAT BRITAIN'S TOWN PLANNING ADVANTAGE

A party of a hundred American citizens are in England to study business methods and civic administration. They arrived at Liverpool on the Cunard liner "Carmania," and after motoring round the city went over to see Sir W. H. Lever and inspect his garden city at Port Sunlight. Later the party visited Chester. The visitors intend to study commercial, industrial, and civic questions in England and on the Continent. Among them is Mr. John Nolen, a well-known American city-planner. In conversation with a Liverpool correspondent of the "Daily News," Mr. Nolen said the Americans were very keen on city planning, but most of the work carried on in this connection was the result of voluntary effort. "In this matter," he said, "we are behind Great Britain, in that we have no law so satisfactory as your Housing and Town Planning Act. We have no general authority which deals with the subject. Each State controls itself, and grants charters to the cities, so that we have no body corresponding to your Local Government Board. This is a great drawback to us."



Mr. H. G. Veale, who has been unanimously elected president for the year 1911-1912, was born at Southampton in 1868. Early in the eighties, when his parents went to London, he was placed with the late John J. Stevenson, B.A., F.S.A., F.R.I.B.A., as pupil for five years. During that time Mr. Veale became a student at the Royal Academy and also studied at the South Kensington Schools.

While attending lectures at the Academy, he had the advantage of listening to the best masters of that day, men like Professor Aitcheson, Sir Frederick (afterwards Lord) Leighton, and others amongst the foremost masters in architecture, painting, and sculpture.

On finishing his articles with Stevenson, Mr. Veale proceeded to this country in 1889. Coming to Johannesburg, he found the place, although much talked of, little more than a collection of wood and iron huts and shanties. He was young and enthusiastic but found it difficult to obtain work to do. However, after a few months he was lucky enough to win a competition for a fairly large Dutch Church at Heidelberg.

Afterwards proceeding to Durban, he joined the staff of W. E. Robarts, where he met his future partner, John Waterson, whom he joined in 1895, and they have been partners ever since.

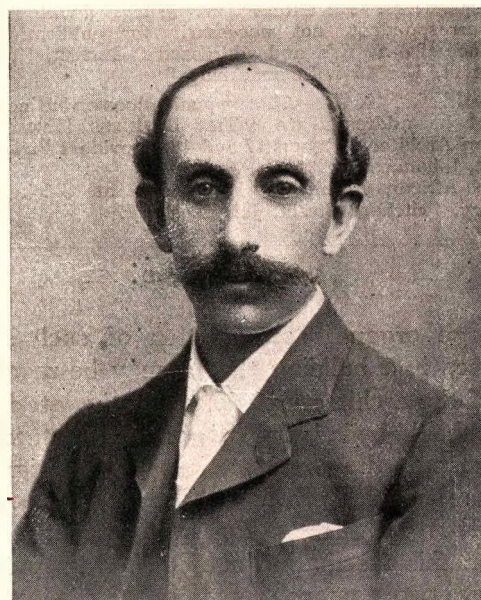
During the war period, Mr. Veale again went to Durban and practised from 1900 to 1905. He carried out a large amount of work there. Amongst other works may be mentioned the Club Arcade, Imperial Buildings, Anglo-African House, and a great number of other street buildings as well as private houses.

Returning to Johannesburg in 1905, after a trip to England and the Continent, Mr. Veale found the town passing through one of its periods of depression, which lasted some years. In 1908 he was, with his partner, chosen as the successful competitive architect for the new Central Fire Station, which work, unfortunately has only partially been carried out.

While in Durban, Mr. Veale was one of the founders of the Natal Institute of Architects, and tried, together with Mr. Methven, Mr. Lucas, and other Natal architects, to obtain a Registration Act through the Natal Legislature. They were not successful; but since then such a measure has been passed by the Transvaal Parliament, and it is now hoped the Act will be extended throughout South Africa.

Mr. Veale's South African life has been largely devoted in working for the betterment of his profession in this country. In his opinion, it is the greatest profession in the world and deserves the best efforts from its practitioners.

He desires a more harmonious condition to obtain in the relations of his professional brethren. With this object in view, he has obtained promises from some of the cleverest men here to read papers and deliver lectures to the members of the Institute during the ensuing year. By this means it is hoped to frequently



gather the members together, and, not only the members, but every architect or man interested in architecture or its allied arts. By these frequent meetings and discussions nothing but good can result.

Mr. Veale is optimistic in his opinion that a large measure of success will accrue to the efforts of his Council in this direction. He said: It is quite possible a South African characteristic architecture may spring out of such frequent interchanging of ideas and aims. The men of to-day, especially the younger men, have an opportunity to trend the moulding of a South African character. America has done something in the way of character, surely we may be able, with our happy, sunny climate and temperament, to reflect this in our buildings, not in the way of silly novelties, but in a dignified and restrained manner."



Rhodes' University College, Grahamstown.

THE ACCEPTED DESIGN.

Messrs. H. BAKER & KENDALL, F.A.R.I.B.A.

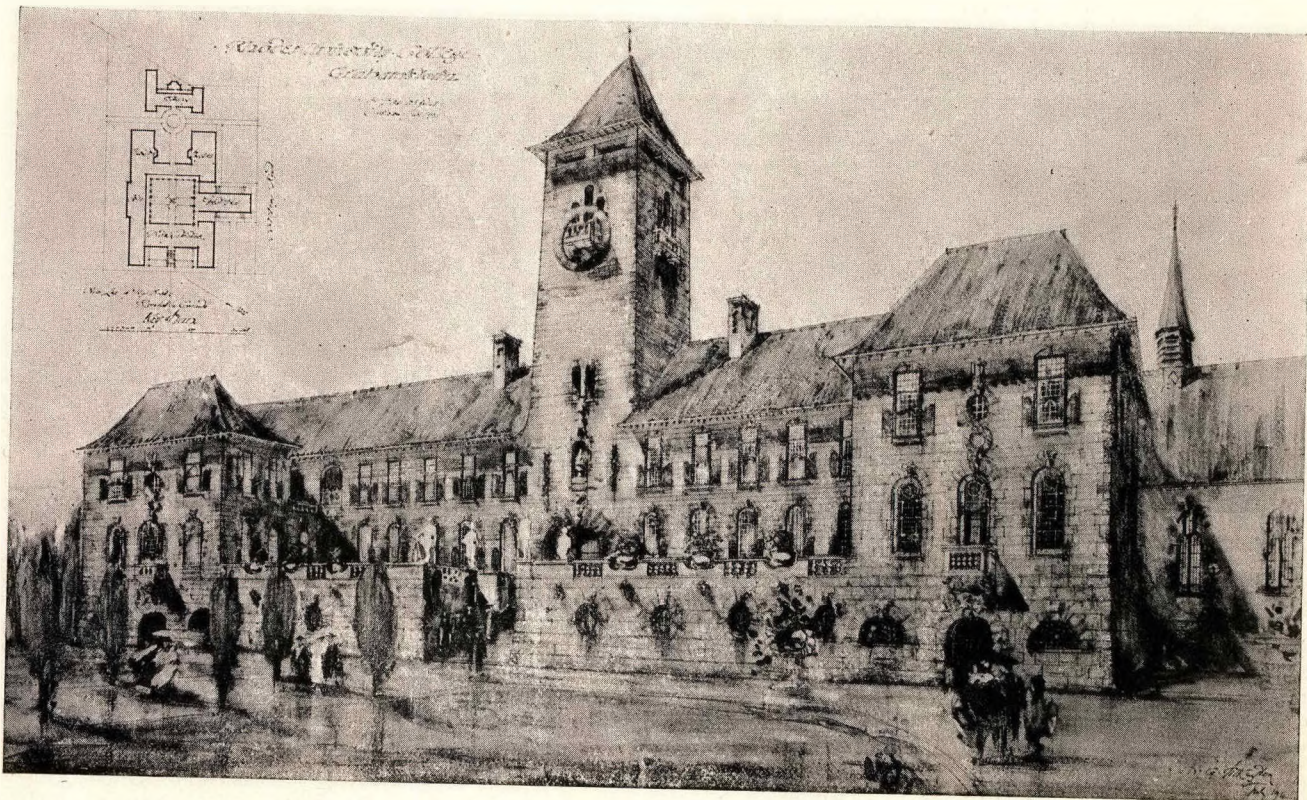


It has been the aim of the authors to produce a scheme which shall meet the requirements laid down in every essential point, keeping the departments separate and yet connected by an easy, and direct means of access.

The departments, with the exception of the botany and zoology block, placed apart, have been planned around a large quadrangle in preference to any treatment entailing the building of separate blocks, thus

The open stoep round three sides of the quadrangle will afford ready means of communication to all blocks in wet weather and effectively shade the abutting rooms from the sun and heat.

On the north-west side of the quadrangle, and principally approached therefrom, is the great hall, so arranged as to make it almost accessible from Artillery Road, should this be desirable. The seating



Rhodes' University College, Grahamstown.

enabling some of the external walls to be plastered, and so securing greater economy. Each block is thus complete in itself and yet so combined as to allow of ready communication from one to another.

With regard to the general "lay out" of the scheme, the lines of communication have been kept simple and direct, corridors eight feet wide being used, widening out to a greater width wherever any congestion of traffic is likely to occur. The staircases have been placed at convenient points, and give ample access to the upper floor.

accommodation provides for six hundred people on the ground floor and about seventy-five in the gallery.

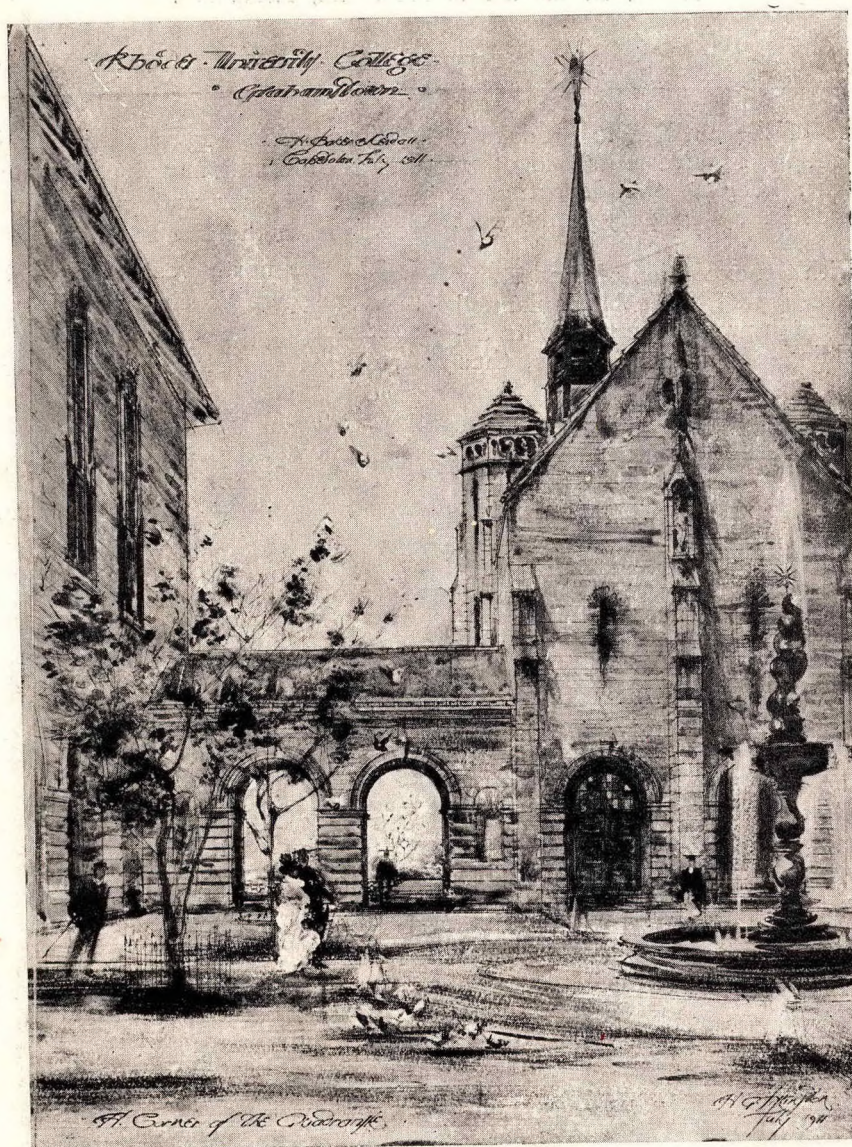
The general construction of the whole building will be of a substantial nature throughout. The external elevations are to be entirely in local blue quartzite sandstone, hammer-dressed, Bathurst or other approved freestone being used for columns, balconies, and dressings to doorway, etc.

The floors and ceilings in every part will be of fire-resisting reinforced concrete.

In planning the various departments, special care has been taken to secure the adequate and correct lighting of the laboratories, while the lecture rooms have been planned and seated in few rows from front to back so as to obviate the necessity of carrying them through the height of the floors, which due regard to the acoustic curve in seating would otherwise entail.

The climatic conditions of the country have been considered in the use of projecting eaves, tall windows, and open arcades, and the utilitarian object of the building has not been sacrificed in any way.

The clock tower, which forms a central feature of the front façade, marks the principal entrance, and, being placed centrally upon the axial line of the High Street, terminates the vista from that direction.



Rhodes' University College, Grahamstown. A Corner of the Quadrangle.

The question of the disposition of the sanitary blocks has been carefully considered, and these have been concentrated at as few points as possible consistent with convenience. They have been arranged in connection with the cloak rooms, and are approached in each case from these, cross-ventilated covered ways being provided for access.

The architectural treatment of the design has been dictated by the necessity of using local stone, and has been designed upon simple and dignified lines expressive of its purpose, depending upon its character for proportions and effective grouping rather than any elaboration of detail.

The nature of the ground in the front portion of the site and the character of provision for bicycle accommodation gives the opportunity for a fine open terrace leading up to the main façade, and advantage has been taken of this fact to form a feature of this terrace in the design.

The building is to cost about £100,000, exclusive of fittings, furniture, electric light installation, etc.

Subsequent to the competition, certain modifications in the plan have been arranged, but these will not materially affect the general design of the building.

SOME "RUSTIC" AFFECTATIONS

The modern trend in domestic architecture—to attempt to use materials, brick, stone, and wood, in the same way as the old craftsmen—is the result of the seed sown by that brilliant coterie of artists and craftsmen who were headed by the magister, John Sedding.

age shows itself. Simplicity and picturesqueness are carried to excess. Roofs are built with so low-cut a line that it is almost impossible to get even a Tottenham Court Road wardrobe close to the wall. Old tiles are used with defective nail holes, or minus the hanging nibs, and one notorious example in the Midlands has the ridge jumped up and down to affect the appear-



Rhodes' University College, Grahamstown. Interior of Great Hall.

The use of hand-made brick and tile has now, in the best work, become universal. Men like Lutyens, Brierley, Dawber, and Lorimer (to mention only a few) are building, every day, houses and cottages that are as perfect in craftsmanship and design as those built in the sixteenth or the seventeenth century.

Simple composition, and the logical treatment of material, are the factors which make their creations charming. Hosts of lesser lights are following their example in the resuscitation of hand-made material, but with less logic. Affectation of rusticity and of

ance of a roof that has sagged between the walls.

The batten door is the "correct thing," and is most artistic if only three boards in width, with wooden latches—or, better still, latches made of string! The men of old used the adze to finish the surfaces of oak; and it is the proper thing now to do the same, to the amusement and contempt of the joiner who has to follow the architect's instructions. Some ultra-artistic men go even further, and treat the surface of oak with a sand blast to give the appearance of age!

CORRESPONDENCE.

Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

ENGLISH GOTHIC.

We have received the following communication from Mr. Edward W. Hudson, A.R.I.B.A. (who at the time of his writing was in New York on his travels), which we have the greatest pleasure in publishing:—

To the Editor of "The African Architect."

SIR,—Permit me to offer my congratulations upon the production of your first number, which reached me through the kindness of a correspondent.

I count it as a compliment that you therein found space to reprint a letter of mine which appeared in the Johannesburg "Star" deprecating a proposal to introduce some unknown style of architecture (?) into the sub-continent, and pleading for English Gothic as the most appropriate style for a country under British dominion.

Instead of a scholarship to foster a search by young architects for a new style, what is wanted for the real advancement of a national type of architecture is several ateliers devoted to a study of the style I advocate in the spirit of the greatest art teacher of the last century—John Ruskin. There are yet, happily, a few men in the Mother Country who are imbued with his spirit, and capable of training the unstable young mind in the traditions of the splendid work of our forefathers. Cecil Rhodes was a great Empire builder, but possessed no claim to leadership in art. Any leader who disputes the power of Gothic to adapt itself to all constructional problems does not understand its principles and is an unreliable guide. I was glad to read Mr. E. J. Wellman's remarks under the head "Gothic" on page 16 of your issue. He rightly also praises the work of Messrs. Goldie and Child, and may agree with me that Mr. Norman Shaw's little church at Port Elizabeth is designed with some regard to climatic conditions.

The pity is that the public is indifferent to architecture, and thinks chiefly of getting something showy for its money, while some architects, who are induced to cater for this, mistake ugliness for originality.

There is a great opportunity for the Transvaal Institute of Architects to deprecate, with your aid, both these faults, and to point out the right path, so that the most important town in the Union may show the way to others, and ultimately set notable and worthy marks of British domination over the whole country by British and not alien art.

Hoping you can spare space for a reprint of the keynote struck by Ruskin, which is appended, and thanking you in anticipation for inserting this letter.—I am, yours faithfully,

EDWARD W. HUDSON,
A.R.I.B.A.

New York, U.S.A., July 18th, 1911.
July 18th, 1911.

FROM RUSKIN'S LECTURE ON ARCHITECTURE.

"Remember that it is the glory of Gothic architecture that it can do anything. Whatever you really and seriously want, Gothic will do for you; but it must be an earnest want. It is its pride to accommodate itself to your needs; and the one general law under which it acts is simply this—find out what will make you comfortable, build that in the boldest and strongest way, and then set your fancy free in the decoration of it. Don't do anything to imitate this cathedral or that, however beautiful. Do what is convenient, and if the form is a new one, so much the better; then set your mason's wits to work to find out some new way of treating it—and, in a few year's time, the whole art of your native country will be re-animated."

[Does not it seem as if Ruskin had in view the actual needs of South Africa in a prophetic eye?—E.W.H.]

A CRITICISM.

To the Editor of "The African Architect."

SIR,—Following Mr. Herbert Baker's comments bearing upon Mr. E. W. Hudson's "Plea for English Gothic," I trust this further reference to a subject of such great importance may have the merit, at least, of keeping the correspondence open for abler pens than mine.

With Mr. Hudson's contentions I am, to a certain extent, in agreement. The climatic conditions of this sub continent should not be held as an insuperable obstacle to the adoption of Gothic architecture, in a modified form, such as suggested by Mr. Baker, is sound and reasonable.

Whilst satisfied that the Gothic of Northern Europe is in many respects ill-adapted to our latitude, and that a style founded on Gothic or Romanesque, modified to meet our conditions, might be utilised for ecclesiastical structures, I am, nevertheless, disposed to go a step further and to suggest their suitability for domestic architecture as well.

Having once admitted that the difficulties in the way of the adoption of Gothic for our churches can be overcome, I fail to discover any sound argument in opposition to this contention. Domestic Gothic is surely sufficiently elastic to permit of its being adapted to our local needs. The so-called Gothic of the picturesque palaces and dwellings of Venice should be equally applicable; its arcades, loggias, over-sailing eaves, etc., can, without difficulty, be made to conform to our requirements.

With Mr. Hudson's loyal advocacy of his favourite style, assuming that he is not conversant with South African conditions, one is disposed to be sympathetic. It is difficult for the Gothic architect, trained to and deeply imbued with the beautiful forms peculiar to his style, as exemplified in the minsters and abbeys of Northern Europe, not to regard as vandalism the discarding of any of those forms which he holds as sacred and of historic interest.

Mr. Hudson's insistence that ecclesiastical architects in South Africa should be, for patriotic reasons, or from the point of view of loyalty to their Mother

Country, coerced into the adoption of English Gothic, qua English, savours of the ludicrous.

Surely the restrictions limiting us in designing are impediment to the flow of originality. In this connection I trust I shall not be misunderstood; it is not my desire to stifle sentiment to such a degree as to utterly eliminate the spirit of loyalty to one's Mother Country from our efforts to evolve a national style, but, in the attainment of such, a slavish adherence to old world ideas must necessarily be abandoned, and as few restrictions as possible, consistent with reason, should be permitted to stay the march of creative genius.

In concluding, I would express the hope that whether Gothic or Romanesque form the nucleus of our future national style, our maxim shall ever be to build with truth. If we must have buttresses, let the reason for their adoption be apparent; if side aisles, it seems to me they should exist as means of communication only. The pulpit or altar has but little interest for the worshipper whose view of these is intercepted by massive columns or piers. Let our aim, whether our undertakings be little or big, be signalled by the upward tendency which shall lead us step by step into the "iter ad astra" attained by eminent exponents of the Gothic architecture of the past.—Yours faithfully,

J. F. BEARDWOOD.

Johannesburg, August 24th, 1911.

LARGE CLOCKS

To the Editor of "*The African Architect*."

SIR,—I shall be glad if you will kindly find room for the following remarks in your journal, and I also trust that your subscribers will read them in the spirit in which they are written, which is to give the public greater benefit of large clocks, by architects providing more adequate accommodation in towers than is the general rule.

I claim the privilege of writing on this matter, having erected more turret clocks than any other person in Africa.

One of the first troubles is that insufficient room is allowed in a clock tower for an attendant to easily wind and clean the movement, which is a most essential point if the clock is going to keep time. The next point is that very rarely is a weight shaft allowed for with sufficient drop, and reasonable access to the pulleys, etc., for lubricating purposes.

In one case I recently had to do with no floor had been provided at all; and after I had pointed this out, a floor was put in which only allowed a distance of thirty inches from floor to the dial centre. As a good tower clock requires a pendulum some six feet long, it was necessary to place the clock in a corner of the tower and lead the connecting rod up, across, and down, by means of bevel wheels, to the central nest of bevel wheels which operate the four dials; these extra wheels not only mean more expense, wear and tear, etc., but a greater shake or back lash in the hands.

In another case, I had to put in opal dials which would have lent themselves nicely for illuminating purposes had not the dial been obscured by diagonal,

vertical, and horizontal struts which put nearly the whole of the dial in shadow.

I should like to suggest that for a four-faced clock the clock chamber should not be less than eight feet square inside, and a distance between floor and dial centre of not less than seven feet. A weight shaft should be protected from the weather and of not less than thirty feet. Of course, weight shafts may be less by multiplying the lines, but with a three-ply line it requires a weight of 450 lbs. to drive a clock with four five-foot faces, and this is generally considered a reasonable weight for safe handling by the ordinary clock winder. The weight shaft, of course, need not be directly under the clock, but may be in any corner, so long as a lead of say twelve feet off the winding barrel is allowed to get a clean wind of the line without overlapping and binding.

I could write for hours on the unnecessary dodging and squeezing of works, bells, and weights I have had to contend with owing to certain architects not making sufficient provision. In most cases, the clock dials of a church or public building are from sixty to a hundred feet high. How many buildings are so provided that a repair to a dial or dials may be effected at a reasonable cost? Ten years ago I erected a clock with four three-foot dials in a tower eighty feet high. There was no room for a larger dial, but it looked very ridiculous, the recognised proportion being that the diameter of the dial should be at least ten per cent. of its height.

Coming to bells, I will only say that few architects take the trouble to find out the thickness of walls required to carry a certain weight of ringing bells at a certain height. I know a tower containing ringing bells at a height of fifty feet with an eighteen inch wall. Fortunately for the worshippers and neighbours, the bells have never been rung, as, in my opinion, with many years' experience, the tower would have fallen in a few weeks if they had been rung. To an architect who caters for clock towers, tower clocks, and bells, I can strongly recommend a careful perusal of the book by the late Sir Edmund Becket, "Clocks and Bells." Although rather ancient, it is still the foremost authority on the matter.

I hope these remarks may lead to better provision for the clock-fitter of the future generation.—I am, etc.,

DIAL.

The very important measure for the registration of architects in New South Wales has been at last introduced. Unhappily, however, it claims no party or individual endorsement. The Acting Chief Secretary presented it to the official notice of Parliament merely as "a matter of courtesy," as he explained. He furthermore said that architects did not stand in the same relation of importance to the community as doctors. We join issue with him on this point. As a matter of fact, it is the architect's knowledge of the various standard laws of health, embodying ventilation and sanitation, that obviate, in the first place, the disease which necessitates the doctor.—"Building."

ARCHITECTURAL PLANNING.



DOMINANT IDEAS. EMANCIPATION FROM TRADITION.



Informative Lecture by
Mr. W. H. Gibson, L.R.I.B.A.



On August 1st, Mr. W. H. Gibson delivered a lecture to the architectural staff of the Public Works Department at the Normal College Hall, Pretoria. His subject was "Architectural Planning," and in the course of his lecture he said upon an understanding and a proper application of the general principles governing the production of a good architectural plan depended in a great measure the success of a building. The plan of a building was not merely the projected outline of its walls, columns, piers, and other features upon a horizontal plane—a mere drawing, in fact—but rather the combination of ideas knit together into a larger complex idea, which, though expressed in two dimensions only, took into account the third. Beauty of plan in the drawing the architect was often left to enjoy by himself; in the actual building it was buried. The client knew nothing or cared little about such architecture, but the artist did, and could manifest delight in his work with lasting credit to his character.

Necessarily there was nothing extravagant in such planning; grandiose effects were not essential; well-proportioned spaces, a due regard for symmetry and impressiveness, some proper ingenuity and craftiness, as well as utility and directness of aim, were qualities available for truly artistic planning. Imagination could be best stored and a critical faculty created by a careful observation of good plans.

Practical Advice

A simple method of obtaining a small scale plan of a large building rapidly was to use a scale-divided page, say in eighth of an inch squares, and to pace the building carefully in average paces, plotting step by step, adopting, according to the size of the building, a scale of one, two, or three paces to an eighth of an inch, giving respectively and approximately twenty-four feet, forty-eight feet, and seventy-two feet per inch. A method like this yielded valuable results in all classes of buildings, but more especially in vaulted churches, as vaulting had to be designed on plan, and was always viewed on plan looking upwards. Another rapid but more thorough method, yielding satisfactory results to a single-handed student, was to measure with a five-foot rod. A plan of Lincoln Cathedral measured in this way and drawn to a scale of sixteen feet to the inch filled nearly three weeks with most valuable study.

Planning as a Whole

No architect worthy of the name ever laid down a plan without having present in his mind at the same time the manner in which he meant to roof it. The mere aspect of a plan on paper at once set the mind thinking as to what the section and elevation of the building would be. Apart from that consideration, a plan, merely as a plan, had its own expression and its own suggestiveness. The typical Egyptian plan at once suggested an architecture of solemnity and mystery, in which the whole plan was an anti-climax, the mystery narrowed and closed round them as they penetrated into the recesses of the buildings. It was striking, too, to compare the typical plans of the Egyptian, the Greek, and the Gothic temples. The prevailing character of the religions to which they were dedicated were expressed in the three plans. The mysterious Egyptian, closing in the more as they entered it, and showing nothing externally but the entrance pylons and blank walls; the Greek, the plan of rationalism—a columnar display on the exterior, and a wide interior neither enlarging nor diminishing within; the Gothic, the plan as aspiration, widening and enlarging to its inner and more sacred extremity. These three types of plan told their own story as to roofing. The Egyptian and Greek plans were manifestly the types for flat roofing; the small inner apartments in the Egyptian plan might be vaulted, but there could be no sense in the forest of columns distributed over the floor of the larger halls except to support a flat roof. The Greek cella showed no abutment for an arched one. The Gothic plan, on the other hand, proclaimed the preparation for the arched roof; they saw the change in the walling from Romanesque to Gothic as the vault was adopted; the masses of wall pivot about and take their stand at right angles to the thrust of the roof.

No Dominant Idea

As an example of the crude fashioning of a plan without any order or any dominant idea, and also of the effect of roofing upon plan, they might take the Palace of Sargon, at Khorsabad. This was a mere warren of straggling apartments grouped on no system; it was true that this was a palace for habitation, not a temple, but why were the rooms all long and narrow? Because they were roofed by a crude system of vaulting, erected without centring,

and which could not be carried out over a wide space. This was essentially an uncivilised plan. What a difference when they turned to the Palace of Diocletian at Spalatro, built one thousand years later! Here the plan was laid out upon regular lines, with due regard for symmetry, so essential in palatial buildings. Long vistas closed by important features and well planned approaches to important rooms are noticeable, while the placing of the temples shows that symmetry was not slavishly followed, but balance was preserved. Symmetry was carried to a greater extent in the plan of the Escorial (near Madrid), in which the great church, the prominent feature, was more centrally placed than the temples at Spalatro, giving a greater effect of climax. The architecture of the Escorial, it was true, was cold and uninteresting, but the plan was a magnificent one—almost inspiring in its very appearance, and clothed in better and more interesting detail it would be one of the finest things in the world.

Study Value

The value of the study of these plans lay chiefly in the principles observed in the setting out, and in the aggregation of a number of halls of different dimensions and varied heights, a problem which at the present day had constantly to be solved. Another example of an excellent plan laid out in the grand manner was Whitehall Palace, by Inigo Jones, one of the finest schemes for a great palace that had ever been conceived—like the Escorial, impressive even on paper. If anyone objected that the executed portion of the building was too cold and formal in style, that did not affect the grandeur of the conception or plan. But, in reality, Inigo Jones' severe and scholarly style of classic architecture was exceedingly suitable to the dignity of a great royal palace, and had his design been carried out, London would have possessed the greatest Renaissance building in the world.

In contradistinction to this noble design one had only to turn to the plan of the Palace of Versailles to see how an architect who was not a great genius failed to grasp a fine opportunity. For a great royal chateau Versailles had an absolutely ideal position: it great courtyard, rising with a gentle slope up to the entrance front, and its other façade overlooking from a wide terrace the finest park in the world. But there was nothing great about Versailles except its situation. The detail was dull and mechanical; but even were it better, the general grouping would have spoiled it.

Private Edifices

Some of the old Renaissance mansions in England showed a close approach to symmetrical planning. Blenheim Palace had the element of stateliness and symmetry in plan carried almost to an extreme; but, in justice to Vanbrugh, it should be remembered that Blenheim Palace was rather more than a mere mansion; it having been built out of the public funds as the token of the nation's gratitude to the great duke. In such a case it was to some extent excusable to put grandeur before convenience. The symmetrical mansion plan, however, was apt to be a danger unless the interior arrangements lent themselves to it. There could be little doubt that Vanbrugh's colossal work inspired a host of imitators who failed to grasp the

true significance of his use of symmetrical planning in domestic work, and misapplied it to such an extent that their productions were mere grotesques of architecture and called forth the censure of all. Pope, in a sarcastic stanza, said of one of these erections:

"'Tis very fine,
But where d'ye sleep, or where d'ye dine?
I find by all you have been telling
That 'tis a house, but not a dwelling."

Used, however, in a restrained and guarded manner, even in smaller houses, a symmetrical arrangement of plan would often allow of very fine effects, especially internally. In some buildings the main idea has been that of obtaining a long vista closed by some important feature. Such a treatment was to be seen in the Municipal Palace at Genoa. Here the building was placed upon a sloping site, and architectural effect had been obtained by keeping open the vista from the entrance across the columned court to the gardens at the higher level. In this case much of the effect depended on the placing and design of the staircase, which entered largely into the main architectural idea.

The Question of Style

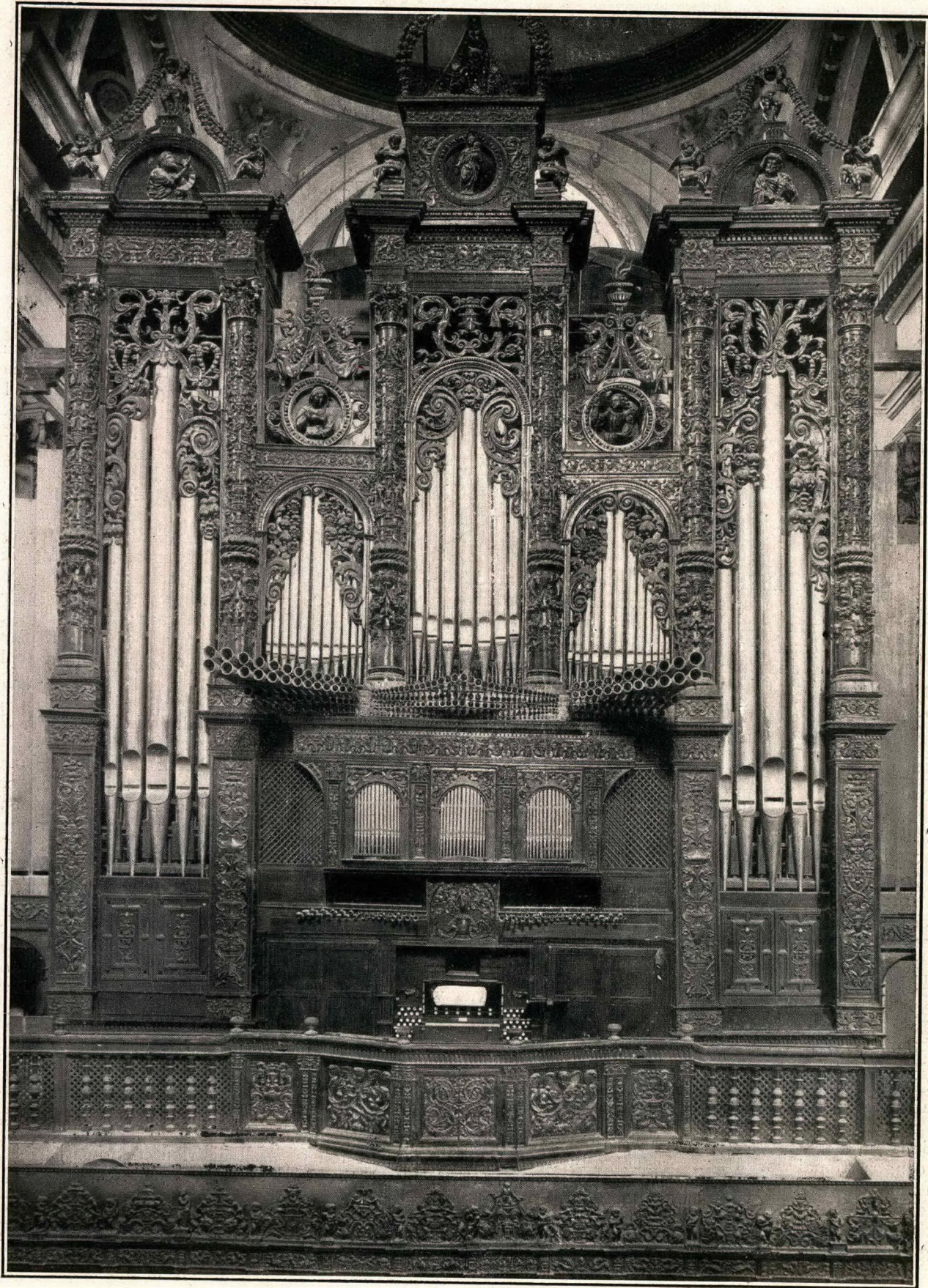
Most of them were still troubled with searchings of heart as to what style was the right one for permanent adoption; one of the considerations in working out a design for a new building still was—consciously or unconsciously—"What style should it be in?" He proposed to deliver them from all this, once for all. Professor Lethaby some time ago proposed that they should solve the problem by hunting down, as he expressed it, all the accepted detail, and beginning again with no details or mouldings, and see what they arrived at. He thought that was rather too stern a gospel for general acceptance, and moreover, that they were much more likely to come on interesting and original detail by developing on traditional lines than by evolving detail out of their own inner consciousness. What he wanted to suggest was not, of course, that good detail was of no consequence, but that, provided it was good of its kind, it really did not matter what kind they adopted so long as the main conception of the building was a fine and effective one; and that the effect of most of the great existing buildings of the world depended upon their general conception, and was to a great extent independent of the style or detail. The delivery from all the imaginary bondage of styles lay in the recognition of the fact that the essential element in architecture was the embodiment of an idea expressed in plan.

LONDON SCHOOL OF ARCHITECTURE

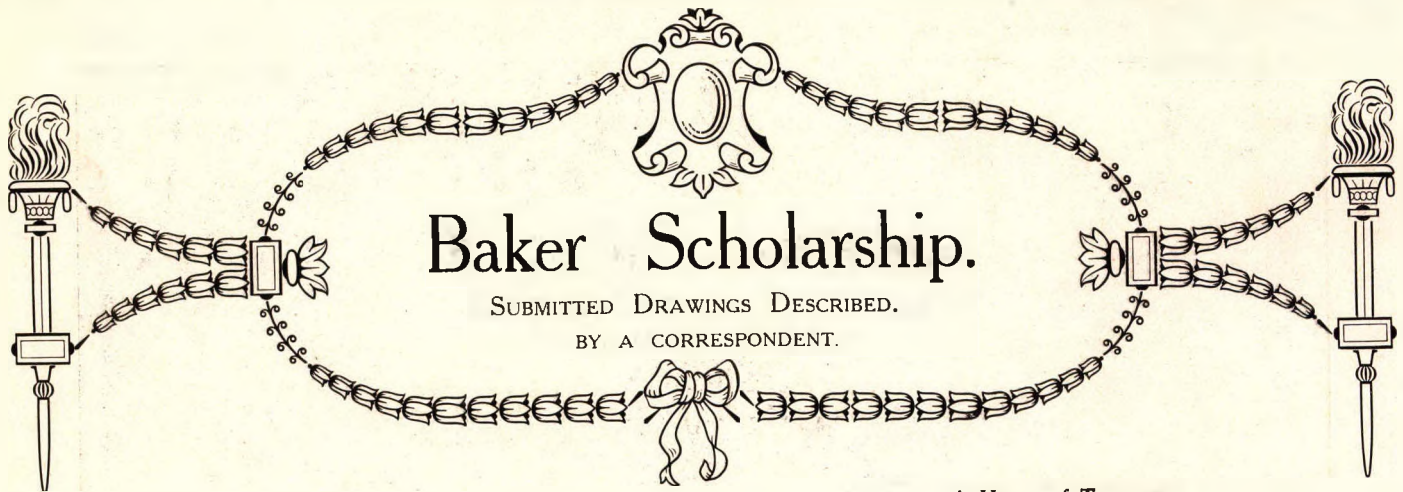
At a recent meeting of the Senate of London University it was resolved to approve the amalgamation of the departments of architecture at University and King's Colleges, subject to the provision of funds for the erection of a new building for a University School of Architecture on the site adjoining the north wing at University College.



The Great Organ at Haarlem, Holland



Organ in Cathedral, Saragossa, Spain



The drawings submitted by Mr. Gordon Leith were a faithful reproduction of an assiduous student life devoted to the art of architecture. The first and elementary stage of such a career was well represented by charcoal drawings from the nude, showing a good knowledge of the graceful lines and proportions of the human figure, while several good examples of measured drawings of existing buildings showed that Mr. Leith's time in the days of his apprenticeship had not been wasted.

Power of Conception

The design for the scheme especially prepared for this competition displays a good knowledge of Ancient and Renaissance work and a power of conception that could only be found in an artist born with imagination and intuitive perception.

It is to be hoped that the course which Mr. Leith is so fortunate to have now commenced will result in the further bringing forth his latent talents and thoroughly equipping him with a cultured and matured style, so that he may return to South Africa imbued with all the principles which underlie the influence and power of the great masters of antiquity. He will then be of use to his country, which may well be proud of him.

Wishes of the Donor

It must be gratifying to Mr. Baker to know that his first scholarship goes to a person whose age, experience, and talents apparently meet with the anticipated wishes of the donor of this scholarship.

The measured drawings comprise good examples of English Gothic, including Dumblane Cathedral, King's College Chapel, Aberdeen, Bede House, Higham Ferrers, and carving on hood mould of Notre Dame, Paris.

Classic ornament was well represented in the details of the Palmette, egg and dart and egg and leaf ornaments. A well-executed sketch of the domes of St. Paul's represented English Renaissance, while the constructional work was represented by a wrought iron roof truss. Amongst the other designs submitted were perspectives for competitive work in Pretoria and Johannesburg, including designs for Johannesburg Town Hall and Pretoria Post Office, both of merit; and also a coloured perspective of a Dutch homestead and many details of Dutch domestic work, such as pergolas, doors, windows, gables, etc., all drawn from now famous examples of this work in the Western Province.

A Home of Treasures

The design specially prepared for the scholarship competition is a good conception of a monumental group of buildings, representing the idea of a home of treasures situated on a plateau which could be viewed from all sides, and the charm of Mr. Leith's scheme is the admirable association of the allied arts of painting and sculpture with architecture. The conditions of the competition, which in themselves must have given inspiration to the competitor, were described as follows:—The building is intended to provide a sequence of halls, rooms, and loggias or courts, suitable for public meetings and receptions, and is to be designed as a home for books, pictures, sculpture, and other works of art; any open spaces, steps, terraces, statuary, scheme of ground planning and tree planting are to be designed in unity with the building.

Central Figure

The central feature of the whole scheme was a magnificent hall after the style and proportions of the tepidarium of the Baths of Carcalla, a beautiful perspective of the interior were submitted, leading from this hall through courts and colonnaded corridors. At one end of the scheme is an open air theatre, with a dome after the style of the Pantheon, but hemispherical in form; the circular seats opening to the sky are laid out on similar lines to a Greek or Roman theatre. This theatre and its sculptures overlook a lake in which their beauties are reflected. It was illustrated by a magnificent perspective—a real work of art in itself. At the other end of the scheme were galleries for works of art and spacious libraries placed in well-balanced wings, while loggias and colonnaded courts and porticos form adjuncts to the several main galleries and rooms, the whole forming a beautifully balanced and symmetrical design both light walls and red roof, overhanging eaves, and in plan and elevation.

The style adopted being Italian in feeling, with abundant foliage well distributed, giving a sense of light, shade, and coolness, which would have proved most acceptable to a climate such as that of South Africa.

The faults of Mr. Leith's design lie in his somewhat extravagant interpretation of the conditions and a want of unity in the whole conception. He might have done better to have concentrated his energies in completing and perfecting the central portion of his scheme.

MR. SOLOMON'S DRAWINGS

The drawings submitted by Mr. Solomon, though not so complete in number and variety, are nevertheless of a high order of merit, and exhibit much skill and architectural acquirements. Amongst Mr. Solomon's measured drawings were details of the Castle at Capetown and of other old Colonial houses around Capetown. These are all well executed and exhibit a thorough knowledge of the style. The most important of Mr. Solomon's drawings is a design submitted for the R.I.P.A. Tite Prize of 1908. It is a covered arcade of shops, with columns, arches, and vaults, with a well-executed interior perspective exhibiting powers of conception and design.

Basis of Design

The basis of the special design submitted for the scholarship competition by Mr. Solomon is that of a double courtyard after the style of the Florentine palaces of the late Italian Renaissance, with galleries, rooms, libraries, etc., clustered round these cortiles, all opening on to arcades encircling the open courtyard. The general lay-out of his scheme is that of a collection of town buildings forming a civic centre in contra distinction to that of making each public building a centre from which the streets of a town radiate. The civic centre, as laid out, appears well balanced and symmetrical, and yet of sufficient radial nature to produce the effect of vista and beauty. The external design is of Italian Renaissance, and due consideration given to the climatic conditions, so that a pleasing effect of light and shade would result.

Faults of Design

The faults of Mr. Solomon's design lie in the narrowness and bad proportions of some of his important galleries and the cramped and ill-considered planning of his main entrance. It was unfortunate that the perspectives which he submitted did such small justice to his conception. The general character of his design shows unity and skill in planning, but the details of the planning exhibited hasty work in many points. On the whole, Mr. Solomon's scheme was better adapted than that of Mr. Leith to the conditions of the competition.

It is obvious that the successful candidate was able to devote much more time to the preparation of his scheme than was at Mr. Solomon's disposal. But the conditions of the competition made it clear that elaborate drawings were not required, and the trustees, in their report, were careful to point out that they were influenced by quality and not the quantity of the work submitted.

THE PRIZE ESSAYS

By the kind permission of the Trustees of the Baker Scholarship, we are enabled to produce the essays of Mr. Gordon Leith (the winner of the Baker Architectural Scholarship) and Mr. J. M. Solomon, who was also a competitor, and is a well-known writer on architecture.

The Principles Dominating Architectural Design in S.A.

By G. E. Gordon-Leith.

The elements that chiefly influence architectural design in South Africa to-day, and those that should play the most important part in the development of a national style, are the same that have guided mankind in the remote ages of the past, and before the creation of a dwelling had become an art. These elements are threefold, and may be classified as: climatic, geologic, and geographic.

Having accepted this theory, we proceed to find a number of lesser, but not unimportant factors, that constitute the art, principally tradition, religion, and custom. With these and the three elements already mentioned we can be said to have embraced all the circumstances that have led to the development of architectural design throughout the history of the world. They are the influences that have brought man to create the temple and the towns, they account for the thermal and palace, as they do for the cathedral and monastery. More especially must we consider the climatic condition of a country, for it is to it we point when accounting for the dome, the patio, and the open colonnade of the sun-bathed countries of Eastern Europe and Asia Minor, as we do when we think of the pinnacled monuments of the colder regions of Northern Europe.

These are the hard and fast rules that govern architecture the world over. It is, therefore, for us to compare our climate with that of countries of older civilisation and benefit by their experience, should the conditions of life correspond.

To build entirely in conformance with the laws of nature is to build beautifully. In the word beautiful is included all the virtues and qualities that constitute and enoble the art of building beautifully. To be beautiful, a building has to be truthful in every respect, and must possess in some degree the "attributes of the eternal."

Allied to architecture are the arts of sculpture and painting: yet these are in no wise analogous to architecture. Architecture can more easily be classified with music, for both are the composition of a single master which has to be rendered by an orchestra of trained musicians, each capable of appreciating the master's scheme and of rendering his own part harmonious with the rest, and yet with distinction in execution. In the finest buildings, as in the great operas, the most capable craftsmen are employed, each an artist in his own sphere of work, play the equivalent part to the leading characters in "Tannhauser," "Faust," or "Carmen." Music, however is ephemeral, while architecture is more permanent—the notes of Lysicrates have gone, his monument remains!

In South Africa it would be a good thing to treat our architectural compositions like the composition of a symphony. We must infuse in our compositions the most beautiful notes and harmonies, we must have breadth and rhythm, strength and vitality, light and shade and grace, and for keynote—sunlight.

Our keynote is a loud one and liable to harden our compositions were they not sufficiently subtle in contrasting light and shade. For knowledge of these subtleties we cannot do better than to refer to what

is our traditional style, founded by the early Dutch settlers at the Cape. This architecture possesses many most noble qualities, and, although primitive, this style should be studied and developed, for its possibilities are beyond limitation.

Like the ancient architect, we should cling to established types, we should obey the laws and rules of traditional treatment, and, so doing, bring about that unique charm of the bygone of which Goethe says: "These great works have been brought about in the same wise as the operations of nature, everything arbitrary, everything self-conscious, disappears. There is necessity. There is God!"

In the composition of his design submitted for the Baker Architectural Scholarship the author has endeavoured to preserve, as far as possible, a long-extended and massive contour, his reason being that the lines of the building should correspond and sympathise with the great sweeping contours of the South African veld.

It was to avoid monotony and to create interest and vitality that the four corner pavilions have been designed to vary in detail with one another and in general with the large centre block. The principal reason for the adoption of red pan tiles as a roofing material is owing to their ability to absorb the sun's rays, diffuse light, and to give colour to the composition. This latter is a most essential consideration in this country, where sunlight has such a tendency to bleach and blacken. The large projecting eaves are necessary to give the building a cool appearance, its shadow is most luminous on account of its massiveness.

In all instances has it been the author's endeavour to maintain the centre line treatment in his design and to place arches wherever an opportunity for a vista presented itself.

The great semi-dome over the theatre is intended to shelter the audience from the violence of the midday sun and to afford protection from hailstones, which generally accompany a very hot day. Generally, it has been the endeavour to build in compliance with the conditions of the country. Local material is supposed to be used throughout.

ESSAY.

By J. M. Solomon.

The special principles dominating architectural design in South Africa are no different from those which have been the essence of design throughout the ages.

The first and the greatest of these is truth, based upon harmony with the laws on which the strength and beauty of the universe are built up. Nothing in the work must pretend to be other than it is, and materials should be used in their right places and not be misapplied.

The second, arising out of the correct interpretation of the first, is beauty, too elusive to define, the spirit of which is described by Shelley as "dearer and yet dearer for its mystery," and is made one with truth by Keats in his dictum. Its power is to kindle the imagination and purify and stimulate the emotions.

Out of these two principles should come qualities of strength, vitality, restraint, repose, and scale.

Strength, in that the building should possess what Wren has called "the attributes of the eternal." No architecture is worthy of the name unless permanency be one of its principal qualities.

Vitality, in that there should be indications of life and growth in the means employed, adapting them to required circumstances. No building should be merely reproduction of past style speaking in a dead language.

Restraint, in that there should be no meaningless use of ornament or feature extraneous to the design or which is not an integral part of the architectural scheme. Effect should be obtained by means which are simplest and most direct, thereby obtaining a refinement and absolute purity of form and perfection of materials.

Repose, than which there is no greater quality in all art, should clothe the architectural work. There should be dignity and quiet strength and no semblance of vulgar exuberance. Exemplar of this is the abstract quality which gives the grandeur to the Greek Temples.

Scale, in that there should be proper relationship of the several parts, one to another and to the whole in point of size. Building in a land such as Africa, with its vast plains and illimitable veld, the work should be conceived on great scale.

Out of these qualities arise certain factors which must govern architectural design.

The most important of these is proportion. Without this factor no work is satisfactory. In a building little depends upon the actual size of any particular feature, but everything upon the relative size of one part to another.

Light and shade are essentials in work in a southern climate. There should be sincere homage to the sun, and opportunity given in splendid surfaces whereon great shadows may be writ in worship. It should be used as the most important decorative feature in wall and void by simplicity of form and thought and line.

There should be balance and symmetry in the arrangement of the several parts, thus making for dignity.

Finally, the primary factors of a building, the materials employed, must be correctly used. Thus, the certain architectural forms suitable to one material must not be employed for another. As an instance, cement must not be used to imitate stone. Each must be used so as to bring out its best qualities and special characteristics, such as will be found in the varying degrees of hardness in stone or the different texture, the denseness of wood, the fibrous and elastic nature of wrought iron in contrast to the brittle effect of cast iron.

With these ideas uppermost in my mind, I have designed my building.

I have expressed truth by giving great strength to the lower portions of it and by giving the appearance of lightness to the structure as it rises. This I obtain by treating my material—stone—in a manner to heighten the impression. The lower terraces are left rock-faced, with deep and wide joints; at the pavilion level the stone is dressed with joints channelled lighter than those below; at the principal floor level the jointing becomes plain and close.

I have attempted to give great scale to the building by conceiving it in the heroic proportions of the great Italian palaces; in the main building keeping as near as possible to the proportions of the Farnese Palace at Rome; obtaining great height by rising gradually from terrace to terrace before planning the main portion.

I have endeavoured to obtain the qualities of repose and restraint by well-placed decoration and statuary.

Principally my desire was to obtain my effect by good proportion, carefully designing one feature in relationship to another.

Particularly have I endeavoured to restrain myself from obtaining effect by injudicious use of ornament, and have relied almost entirely upon the play of sunlight and shadow in arched openings as on the north front; in the detached column treatment on the east and west fronts, with the wall behind well recessed to add effect of light and shade.

To add beauty and grandeur to the whole composition I have carefully designed upon classic proportions a great projecting, dominating cornice casting a deep shadow on all fronts in turn.

The open courts of the interior are for coolness and, in a land of great sunshine, I have designed my windows so that rooms are not unnecessarily flooded with light.

To give great monumental character to the building I have kept my principal floor at a high level, approached through arched openings by continuous tiers of steps, and have omitted for this reason to provide anything so utilitarian as lifts in a building devoted to the arts.

Generally, the principle which has guided my plan is that of the Italian Palace, with its rooms arranged round open courts, and in order to retain my proportions, I have placed my great hall between the sculpture and fountain courts, but have kept long vistas, the whole length of the building, on either side by continuous loggie.

In my details I have followed the work of the Veronese architect, Michele Sanmicheli, whose excessive love of bigness and extreme simplicity and suppression of all unnecessary mouldings and decoration compels me to admire him above all other builders of the Cinquecento.

In the treatment of the site I have kept the lay-out on broad, simple lines. The northern aspect being the most important, I have designed the approach from a great public monument, and have arranged the boulevards around the site radiating to this point so that the monument might always be in view.

The approach is along a treatment of tapis vert and statuary flanked on either side by avenues for wheel traffic and a pleached walk for pedestrians. At the head of this approach is a circular sunk garden with loggie and an amphitheatre for open-air meetings and music, designed in the style of the Boboli garden amphitheatre, behind the Pitti Palace in Florence, surrounded by tiers of stone seats adorned with statues in niches. The whole kept in pure Renaissance detail without any of the later boroque.

Immediately in front of the building is a great basin in which the surrounds will be reflected. The gardens directly around the building are strictly

formal, with small temples and shelters, and as they recede from the centre become less formal.

At each point of the compass, at the end of the vistas, is placed a monument.

The æsthetic impressions are continually considered in the lay-out. The effect of passing from the sunlight into the shaded avenues of the approach and from the sheltered privacy of the pleached walk into the open gardens around the building, thence up the steps of the first terrace to the mossy coolness of the grottoes, with their niches and fountains of dripping water will, by this method of planning, be the means of obtaining the varying effects and unexpectedness of beauty.

The four pavilions, entered from the level below the principal floor, whilst serving to strengthen the appearance of the building, link together the upper terraces and are to be used as galleries for the crafts and for music.

The sculpture court is to be paved in black marble and to have black marble columns, whilst the walls are faced with red stone to give contrast to the statuary.

There is also provision for a suite of rooms to be designed in the early colonial style of the Cape.

The library and banquetting hall and salons or reception rooms are off the fountain court.

The roofing is of semi-circular red Italian tiles. The line of the eaves of the pavilions is carried round the whole building and tiled in order to give colour and texture. The triglyphs, however, are only retained around the frieze of the pavilions.

The balustrading to the upper terrace is broken to give reception to clipped trees in large red pots.

The great ideal ever before me was that, whilst through the use of conventional forms I must make my work a living art, yet I must endeavour to respect the continuity of tradition and the value of precedent by basing my design upon those forms of architecture which have stood the test of time, are good in themselves, and are eternal.

Above all taking into utmost account the local climatic conditions and environment.

A new research hospital, in which the Committee for the Study of Special Diseases will continue their researches on rheumatoid arthritis and allied diseases, is now in course of erection at Cambridge. The building is so designed by the architect, Mr. Herbert W. Maguire, of London, that it may be used either as a research hospital or as a private residence. The contract has been let at £1,777.

A small Parliamentary Committee has been formed for the purpose of pressing on the King Edward Memorial Committee the Hyde Park Corner scheme prepared by Professor Adshead. It is claimed on behalf of this scheme that it extends instead of diminishes the park area, that it assists the traffic, that all the historic features of the site are retained, and that a fine position is secured for a statue of the late King, without the sacrifice of a single tree.

ENQUIRIES ANSWERED

PRIZE ANSWERS

We propose in this issue inaugurating a column under the above heading, and believe it will be of practical usefulness to the profession of architects, and to builders as well.

We will receive questions from correspondents, which will appear in "The African Architect," and will be answered in the following issue by any reader.

The replies will be reviewed by an expert, and upon his decision, which must be final, 10s. will be paid for the best answer.

We will also announce the name of the correspondent who is successful.

Enquiries on the following subjects are not desired:—

- (1) Enquiries about buildings to measure in particular towns and districts.
- (2) Enquiries embodying questions which have been set in examination papers.
- (3) Enquiries which ask for or require the preparation of special designs as part of the answer.

EXAMPLE.

SAFE LOAD OF FLOOR.

CORRESPONDENT writes:—"Please say, from the following particulars, what safe load a concrete and steel factory floor will take per square foot clear of its own dead weight; 5 inch by 3 inch steel H-joists are placed at 30 inch centres, in concrete 8 inches thick. The span is 30 feet."

The best answer was that of Mr. — as follows: We have the general formula: B (bending moment) = S_m (section modulus) $\times f$ (safe stress). Now the S_m of a 5 inch by 3 inch joist is 5.45, and if we take $f = 7\frac{1}{2}$ tons, we see that the floor can safely resist a bending moment of

$$5.45 \times 7.5 = 40.875 \text{ inch tons.}$$

The joists, being continuous over one support, have their maximum bending moment, a negative one, over the support when both spans are loaded.

Calling w_1 = the dead load in lbs. per inch run, and w_2 = the live load in lbs. per inch run:

We have

$$B = \frac{(w_1 + w_2) l^2}{8}$$

Now $w_1 = 2\frac{1}{2} \times \frac{8}{12} \times 150 \div 12 = 10.416$ lbs. in run and $l = 13 \times 12 = 156$ inches.

Therefore $(10.416 + w_2) \frac{156 \times 156}{8} = 40.875 \times 2240$ in. lbs.

from which

$$w_2 = \frac{40.875 \times 2240 \times 8}{156 \times 156} - 10.416 \\ = 19.684 \text{ lbs. per inch run.}$$

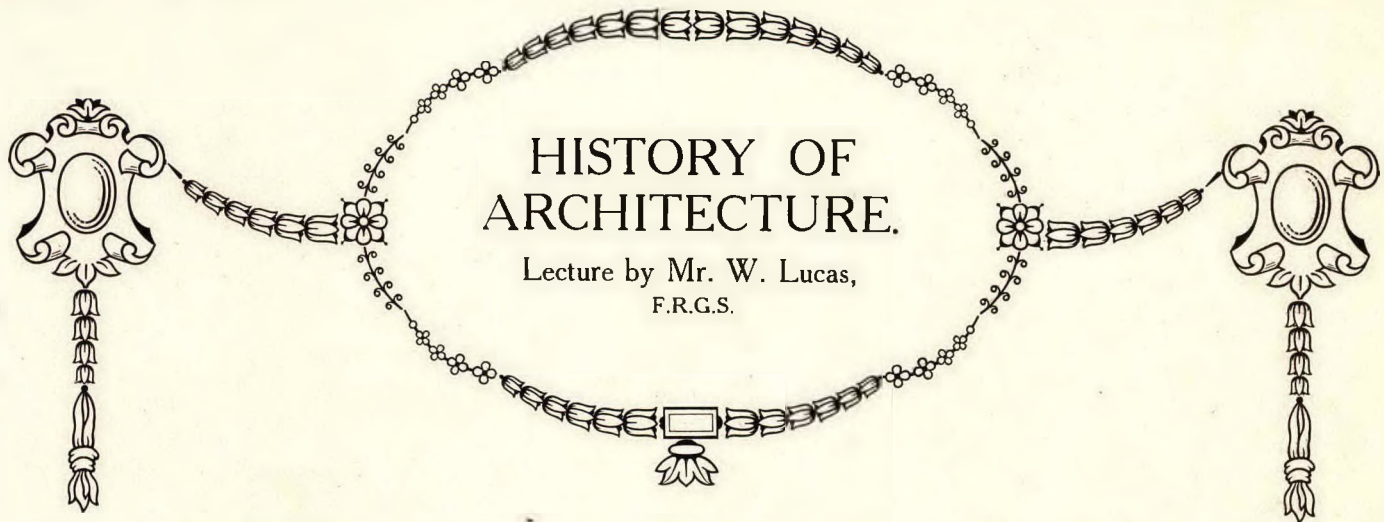
We see then that the floor will sustain a super load of

$$\frac{19.684 \times 12}{2.5} = 134.5 \text{ lbs. per foot super.}$$

ART EDUCATION

At the annual meeting of the National Society of Art Masters, held at the Victoria and Albert Museum recently, Mr. R. G. Hatton, in the course of his presidential address, affirmed that among educated people there was now no doubt of the value of art as a factor in education. There was now, he said, no need to plead the cause of art; the great trouble was to keep up with the quick pace with which the understanding of it was moving. There should be schools of art reasonably accessible to all the people in a district. He claimed that the people had a right to sound education in art apart altogether from questions of trade or vocation. A much better case could be made out for art as a subject of education, and a more dignified recognition could be secured for it, if it were raised above a technical level, and its æsthetics and psychology were more profoundly studied. Moreover, the training of apprentices and young workmen in schools of art in some subject bearing on their trade was a part of art school work which was not likely to be adversely criticised, and the future would see its extension rather than its reduction. Mr. Hatton's views on the subject are no doubt very sound, and are now much less open to misconception than they would have been but a few years ago, when art was commonly regarded as a thing apart from practical life, and rather antagonistic to it. The supposition that the object of art teaching was to create artists, and thus to swell the ranks of an already superfluous horde of more or less useless, if more or less ornamental, members of the community, has given place to the larger and saner view that everybody would be better for a little "hand-and-eye training," for the quicker and truer perception of values in form and colour. Thence must inevitably ensue a general extension of taste, and a more just appreciation of good work whether in pure or applied art. One result would certainly be a better appreciation of architecture and decoration. Hitherto there has always been the fear, more often felt than expressed, that facilities for art study would be abused—that, for instance, "dabbling in art" would spoil a potentially good carpenter and make him an actually bad architect. The fear was not without justification while art education was rare. By making it common, and by making as clear as Mr. Hatton has sought to do the real objects in view, absurd ambitions will be checked, and there will be no more reason to assume that because a boy is taught drawing he will aim at becoming a painter or an architect than there is to suppose that because he is taught grammar and composition he will naturally aspire to become an author. At the same time, the field from which the professions are gathered will become more fertile, but not altogether, if at all, more prolific, because the tares will be earlier separated from the wheat. The art schools should relieve the architectural schools of a large part of the painful duty of eliminating the unfit, and should send forward the fit not in greater numbers, but in greater proficiency.

Sir Thomas Manly Deane, who was knighted by the King at the opening of the Royal College of Science, Dublin, of which, jointly with Sir Aston Webb, he is architect, is the son and grandson of architects who received the honour of knighthood.



GREECE AND THE ACROPOLIS

The second lecture of the course on Architectural History, arranged by the Public Works Department, was delivered on Friday evening, 28th ult., in the Normal College Hall, Pretoria, by Mr. William Lucas, F.R.G.S.

The chair was taken by Mr. W. E. C. Clarke, M.A., Secretary of the Education Department, and the attendance of officials and staff, and the public, including several ladies, was fair.

In continuing the subject of Architectural History, the lecturer remarked that in introducing the matter he had had occasion to emphasise the Mediterranean Sea as the cradle of architecture, and also to refer to tributaries so far distant as Peru, India, and Persia. The threads were isolated, yet there was not an entire absence of unity in the expression. Similar principles in the main prevailed. But it was essential, in order that the foundations of art, and of its literature, should be of a nature to receive the destined superstructure that there should be concentration. The period of such concentration was a century and a half (B.C. 490 to B.C. 346), and particularly the fifty years thereof which succeeded the Persian war; and the arena was Greece—an area of about the size of Scotland, and, in many respects, very similar—and mainly a very limited portion of that land. Concentration of idea was also very manifest. The nurture of architecture at that period seemed to be of that divine order in which there was not a moment to spare. Owing to the difficulties of travel in the Near East, however, it was not until the dawn of the nineteenth century that the artistic eye really discovered to what an unique height the Greeks had risen in architecture and sculpture. Much regarding these works could be gathered from literature, but it was eminently desirable to also realise the nature of their environment. Greece was a land of luminous light, a form of light unknown elsewhere, which gives a definition of outline, and of shadow, and gradations of colour such as the poet-mind can but faintly describe.

The subject of Greece and its architecture was so vast that, instead of rambling over the whole ground, on this occasion there would be concentration on the Acropolis, and particularly on its plateau, which, it may be interesting for comparison to remember, was about the size of the platform that had been prepared

on the slope of Meintjes Kop for the Union Buildings, say 1,000 feet long and 450 feet broad. No area, however, was more nobly freighted with architectural worth than that mount which arose in the centre of ancient Athens to a height of about 150 feet above the surrounding surface.

Mr. Lucas then described in detail several visits that he had made to the Acropolis under varying conditions, and of views that he had had of that renowned rock of Athena from various standpoints.

Atmospheric Effects

The atmospheric effects, and the play of colour about its heights, in summertime, the season in which Greek artists gloried, produced scenes of indescribable charm. And though the marble structures that surmount that height had experience of three and twenty centuries, they still exhibited such a degree of delicacy and softness that they seemed rather to have been directly sketched into the landscape by the architects themselves than having been built from their designs by the hand of labour. One felt that there art had presented work with all its beauty, elegance, and strength to Nature; and that Nature in return had enriched the presentation with the glories of environment, atmosphere, and sunlight unsurpassable.

Of late years a good deal of restoration had been taken in hand, and effected chiefly with the original members, formed in their entirety or in fragments, on or around the Acropolis. And in this matter of restoration and repair, the fruits of modern science in the way of steel joists and stanchions as visible supports were availed of, as well as reinforced concrete to add to the preservative power. In fact, also, for the past seventy-five years there had been much activity in the work of clearing these architectural treasures from the accumulation of material that at certain periods in the history of Greece had been caused in the way of defence, and occasionally through explosion.

Mr. Lucas laid emphasis on the fact that climatic conditions had hardly affected the sharpness of line, even in regard to the finest work; and while the original white surface was not retained, the ochrey buff, in some instances approximating to a dull gold, was quite acceptable, whether seen closely or from a distance.

Immensity of Bulk

By means of a series of lantern views, the various structures that cluster on the summit and southern slope of the Acropolis were passed in review before the audience. Compared with many other classic structures, immensity of bulk was not an element in the greatness of Greek work. The princely generosity that resulted in the music theatre of Herodes Atticus, and the value attached in the great period of art to dramatic representation which originated the theatre of Dionysos, were dwelt upon. In the latter theatre, upon marble seating resting on ledges excavated in the rocky mountain side, at least 15,000 spectators had frequently assembled. Many of the seats of dignitaries (who had sat in them 300 years B.C.) were in remarkably good condition, and the wealth of sculptured work scattered about was sufficient to make the fame of numerous museums. Though there is no structure of the third great Greek order—the Corinthian—on the Acropolis, there are two isolated columns of that order of great age on a spur near to the foregoing theatres. It was also interesting to note in connection with the architectural history of Greece, at this point, that while the surrounding islands of the Cyclades were filled with beautifully coloured marbles, the Greeks almost invariably used white.

The Propylæa, the entrance to the summit of the Acropolis, is probably the most distinctive composition of Greek architecture extant.

Erected in 420 B.C., in many respects the Erechtheum, a double temple with portico of maidens, northern doorway, varying floor levels, and frieze of dark grey marble, is the most interesting of Greece's buildings. It certainly was the most venerated of all the buildings of the ancient city, for within the portion dedicated to Minerva Polias had stood the original Minerva—a figure carved in olive wood—which was declared to have fallen from heaven.

The Majesty of the Doorway

The figures of the portico (which had been so constructed as to afford light and air to the sacred olive) were believed to represent the six daughters of Erechtheus, who, having offered themselves at a time of war for their country, were ultimately promoted as goddesses of rain. The majesty of the doorway of this temple seems to have determined the fact that, at least in modern Athens, no entrance doorway, whatever the structure, should be mean or insignificant. Then, to members of the profession of architecture, it was peculiarly valuable as possessing the most perfect form extant of the Ionic order.

Without the Parthenon, the Acropolis could hardly be the Acropolis; and without the Acropolis the Parthenon could hardly be the Parthenon. They so grace each other as to have secured Athens eternal fame.

Modern Athens

Modern Athens stretched northwards from the Acropolis, and in view of the Secretary of the Education Department occupying the chair, Mr. Lucas stated that he could not refrain from reminding his audience that the city was a great educative centre, no less than 2,500 students, under one hundred professors, being at the University; that every child who was

met with seemed to fulfil his ideal of child-beauty, and, almost invariably clad in blue or pink tunic, seemed to be acquainted with the land's historical structures. They were, further, jealous as to the pronunciation of the names of the great masters in art and literature.

The chairman, in moving a vote of thanks to the lecturer, emphasised the point that had been brought forward as to the great importance of sunlight and shadow in determining the impression architectural works made upon the mind.

The lecture was very fully illustrated by means of a powerful electric lantern.

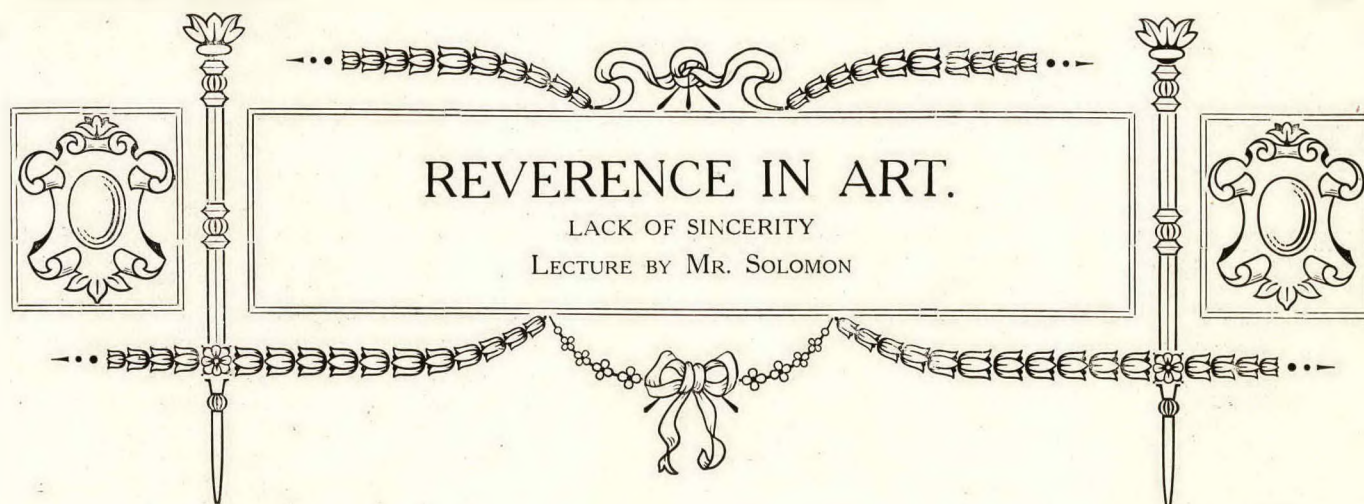
TRADE NOTES.

Mr. Ashdown, of the Arcadia Saw Mills, Pretoria, enterprising as ever, has recently opened a central store and office at 371, Church Street, Pretoria. This his many patrons find most convenient, as there, on the spot, can be seen mantelpieces in all manner of designs and at all prices; ironmongery of every conceivable nature; and, in fact, every requisite for a builder.

Now that the warmer weather, with its co-relatively stronger sunshine, is coming on, the patent prismatic outside roller shutter now being placed on the market by Messrs. McDonald and Thorpe, 335, Pretorius Street, Pretoria, is surely about to fill a long felt want. It can be affixed to any size of window, and works on the roller-top desk principle. It is simplicity itself in that respect, and, as the spars overlap, there is no danger of rain water working its way inside. They can be regulated to any height, and the Public Works Department have evidently grasped the good points of them, as already the manufacturers have placed several in position to their instructions.

Almost four months have elapsed since the date of the disastrous fire at the Empire Palace Theatre, Edinburgh. The scheme of reconstruction and redecoration has been completed, and the theatre was inspected by the burgh engineer, who sanctioned the re-opening of the theatre. The structural alterations, which have been carried out under the direction of Messrs. Frank Matcham and Co., architects, London, have been confined to the stage, with its exits and the suite of dressing-rooms. The stage and the dressing-rooms on the ground floor suffered most by the outbreak of fire, and the opportunity has been taken to construct an entirely new stage. Modern fireproof construction has been adopted wherever possible, and wood has been almost totally dispensed with.

The Radium Institute, in Riding House Street, W., which has just been finished, and is the best equipped establishment of its kind, has a supply of radium amounting in bulk to about half a teaspoonful, which is probably worth £50,000.



The first meeting of the Institute of Architects was held on July 31st in the board-room, Trust Buildings, when there was a very good attendance. Mr. H. G. Veale, the president, occupied the chair. An interesting paper, entitled "Reverence in Art," was read by Mr. J. M. Solomon. A discussion followed, and subsequently the members were entertained to supper at the New Club.

The Essay.

In the course of his paper, Mr. Solomon said: I never quite realise how great a thing your art is as when I have to speak about it in the presence of those who have made it their life practice, for I take it that you are all agreed by now that you practice the greatest of the arts—which is architecture. Art is a language, not a form of amusement, and therefore you who practice it cannot treat lightly its highest and noblest manifestation, which is architecture; but follow it with reverence, acknowledging yourselves as artists, but, above all and more than this, as guardians and builders of the civilisation of the age in which you live. I shall not ask how many of you realise this, for I wish to-night to speak alone to those to whom their art is not only the maintainer, but also the holy flame of their spiritual hearth. To these men, therefore, I ask, how much are they doing toward the growing necessity for a wider and more intelligent understanding of the art they practice? It may not have escaped your professional observation that there are only two classes of mankind in the world—architects and clients.

Lack of Reverence.

If you feel with Whistler, as I do, that there never was an artistic period; that there never was an art-loving nation; then you must rule out of existence the mob and apply what physic you possess to the symptoms which give evidence of the unhealthy state of the former. It may be a visionary idea of mine, but I am inclined to believe that the reason why so little great work, so little great art, if you will, is produced to-day, is because we as men lack reverence. I suppose that never in the world's history has there been an age when men have been technically so accomplished as we are to-day. It astounds me when in my studies I come across the draughtsmanship of such great masters as Palladio and Inigo Jones. The

winner of a modern scholarship puts their drawings to shame, but proves to me how little such things count in the fundamental principles which govern our art. We have at our hands to-day the accurate evidences of the styles of all the ages in a more perfect manner than ever was, and in our architecture individual taste dictates the programme, but a poor thing it is that we produce! Do you know why? Because it is the life and character of the worker making itself felt in the language of the artist. Gentlemen, you lack sincerity in your work. You have come to worship other things than your art; you have learned to send it on the streets to be "chucked under the chin by every passing gallant," that you yourselves might reap what material profit it brought.

Registration Act.

You will tell me that with your Registration Act you will right the wrongs of a country which was overrun with adventurers from other lands, who carried on their reign of terror. That now you have formed a "corner" in architectural skill your art will rise Phoenix-like from the ruins. "Can any good thing come out of Nazareth?" asked the Pharisees some two thousand years ago. I wonder if that query is re-echoed to-day! Gentlemen, you are divided into two camps. There are among you men who know what is right, and men who know not what is wrong in architecture. Between those two camps are a few who are like Erasmus in the Reformation, with his foot in the stirrup but without the conviction to mount. Your besetting sin is that you have no reverence. If this light, which is the fire of your inspiration, is lacking in yourselves, how can you expect it to fan to flame in the public? At this moment I am conscious that the average man does not appreciate architecture, and he does not understand it. It is, therefore, your duty to mould and fashion his fancy if you would make the path easy for those who come after you. Surely, on the man who knows lies the responsibility to hand on his knowledge to future generations. You are none of you of such importance that the world could not get on without your individual creations, but your art cannot exist and flourish unless someone is prepared to make a sacrifice of his individual convenience and material interest to hand on its principles and traditions. How

do you think you have come to hold the knowledge which you now possess; how came the heritage which as builders you can rightly claim? Only by the sacrifice of those who slew their greed for gain and so handed on the torch.

Debt of the Past.

Think of the debt we owe to those men. Next time your hand on the drawing-board travels round the curves of the Ionic volute, remember that the lines you are tracing are those followed by the workers of the age of Pericles. Then, if you have any pride or pleasure in your work, you will be set thinking about the great debt you owe to the past. There is only one way to repay your obligations, and that is by a realisation of your immense responsibility by a spirit of reverence. And when you arrive at that state of humility you will be less inclined to devise a brood of mis-shapen productions to astonish the earth. Reverence will set you studying the works of your predecessors in such a way that it will temper your invention and compel you to refuse extravagance and avoid excess. I suppose many of you set out, as we younger men set out to-day, with great hopes and fears for the future? Many of you have allowed the sordid routine of everyday life to destroy your illusions. In competition with youth more aptly equipped both with strength and adaptability to changed conditions; without ideals to lighten up the dullness of life's pathway and bring to the sordid existence a much-needed touch of romanticism, the old man, at an earlier or later period, overstrains himself, grows dizzy, loses his grip, and falls to earth. Whether it be a gradual descent or a grand spectacular tumble which marks your exit makes little difference; if you have failed to sustain yourself with the spirit of reverence, you are relegated to the rear; your tale is told, and you may as well order your epitaph. Gentlemen, do not believe that I am altogether pessimistic. I am fully conscious that there are among you men who have produced work which has given the lie to Disraeli's dictum that there will never be good architecture until we have hanged an architect or two; rather believe that my words are meant for those in this country of ours who have rendered the indecent and objectionable in the apparent assumption that the field of architecture requires manuring! You who serve this land know that a great future lies before her.

Duty of Architects.

It is your duty, therefore, in this dawning twentieth century to find some principle on which to base your work in order that it may be worthy of that future. It is sometimes argued that we are a people without a history, and therefore without traditions, and that we must develop an architecture of our own. Gentlemen, no greater fallacy was ever uttered. We have had Europe not only playing a direct part in South African history since the time of Henry the Navigator, but her domestic strifes have waked the echoes in the Southern Continent. Every element in modern South Africa is long connected. Quite recently a writer has pointed out that the work of Calvin is in her Dutch settlers; her French blood comes from the Huguenots of the seventeenth century; and that it was in the long duel with France that Great Britain first took

possession of the Cape. Now, as history goes in architecture, that is no extensive period, but it is long enough to prove to you the continuity of the link with the greatest epochs in your art. You must, therefore, accept those heirlooms of the past or perish. The jerry-built modern creed which asks you to ignore tradition you must destroy with the sword of reverence. Milton has told you that "Fame is no plant that grows on mortal soil." If as architects you would be famous, you should link up your buildings of to-day with the monuments of the past. You must be prepared to let your fame rest with posterity. From the streets of Florence the noble knight and haughty duke have long since passed away, yet the gates which the simple goldsmith, Ghiberti, made for their pleasure still guard their lovely house of baptism as worthy to-day of praise as when Michael Angelo called them the gates of Paradise. Gentlemen, it is for you to make the songs in stone you sing to-day known to the whole world of to-morrow. There is a vitality and promise—an infinity of things to work and strive for in this southernmost sixth of ours, and that is the main point. Let your work in this land fulfil the conditions of beauty, and it will have fulfilled all conditions. The history of your art is the memory of some of the world's greatest men. I need not stretch your patience by talking to you any further about the high ideals and the lofty ethics of the noblest profession of all. I shall be satisfied if I have given you some food for discussion. If you will let me, I will wish you in your future what all men desire—"enough work to do and strength enough to do your work in reverence."

A hearty vote of thanks was passed to Mr. Solomon.



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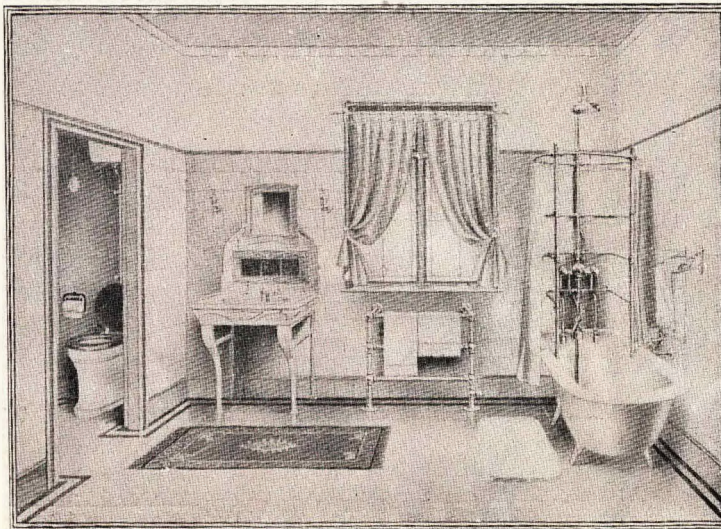
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