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CONTENTS FOR MAY 1947

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EDITORIAL

The Fourth Congress of the Institute of South African Architects and the Chapter of South African Quantity Surveyors is to be held in Durban this month, and, as it occurs during the present difficult period of post-war re-adjustment twenty-one years after the founding of the Institute and Chapter as we know them, it will mark a significant period in the history of the two professions.

The Architects and Quantity Surveyors of the Union owe a profound debt of gratitude to those men whose foresight gave us our private Act. Many of the ideals which motivated their action have, however, yet to be realised, and it is up to us to keep clearly in view the great contribution we can and must make in the physical and cultural development of our country; that, by service to the community transcending the desire for mere personal gain, the growing reputations of the professions may be securely established.

Prior to the war only three congresses had been held; the first in 1928 at the University of the Witwatersrand, Johannesburg; the second in 1936 concurrent with the British Empire Exhibition in Johannesburg, and the third in 1938 at Port Elizabeth. There is no doubt that, but for the war, the fourth congress would have taken place some years ago, and it is to be hoped that in future this coming together of members of the profession will be a much more regular occurrence than in the past.

We have a major task in building up the reputation of the professions and in gaining the widest confidence of the public. The value of discussion and development of a truly corporate spirit cannot be gainsaid in this regard and in the development of that full maturity which has not been acquired. The growing importance of the architect's place in our society must be constantly and consciously augmented. Tribute is due to those architects in Pretoria and Durban in particular, whose corporate efforts are achieving so much in those cities. These excellent examples exist and should be followed in all urban centres of the Union wherever possible so that the architect shall take his rightful place in and realise his true responsibility in our specialist society.

It is fitting that this Congress should be held at a time when the professions are so sorely beset with the problems of post-war re-adjustment. During the war years the members of the professions in and out of the fighting services acquitted themselves well in their several spheres of activity, and this must stand to their lasting credit; but we cannot afford to relax now. During these years the complexities of practice have become greatly aggravated. Without doubt one of the greatest agencies of aggravation has been the control exercised over building, necessarily established during the war. The determination of policy, however, has been so varied and its administration often so obscure and inexplicable that the long suffering industry and the public have been hard put to maintain, if they do at all, the confidence such an organisation should command. This issue, together with those of professional education, Urbanism, National Housing and other matters of importance will be discussed. Such deliberations cannot but be of major value at the present time, and we look forward to the success of this gathering, a full record of the proceedings of which will appear in the two following issues of the journal.

W. D. H.

NORTH ELEVATION

Photos: Alan Yates

New English Medium School of Hercules, Pretoria

Aubrey V. Nunn, A.R.I.B.A., M.I.A., Architect

The Transvaal Provincial Administration originally intended that the school should be a single storey building, but in the course of planning it was realised that the site coverage, when the future extensions were taken into account, would have left very little playground space. As a means of overcoming this difficulty the architect has planned the building on two floors. The present classroom accommodation is located on the upper floor, supported by a regular column system, thus freeing the ground floor area and providing a covered play space. The disposition of the columns in this space will permit an additional four classroom being provided without structural extension at a later date, and without interference with the routine of the school.

The planning reflects a simple zoning and organisation of the components. The Administrative unit is located on the west of the main structure and comprises the principal's office, staff room and stock room together with cloakroom facilities. As will be seen from the plan, provision has been made in this wing for the future Assembly Hall and principal's office. The main position of the building, occupying the central position contains the south-facing classrooms on the upper floor. Two generous staircases, related to the Boys' and Girls' entrances and cloakrooms gives access to the main upper floor corridor. Adjacent to these staircases the grades classroom and the arts room are planned. Future provisions to the east of this wing include a kitchen and grade classroom, with outdoor play space, on the ground floor.

THE SITE

The site for this school, situated in the suburb of Hercules, covers five erven and is bounded on three sides by streets—on the south, west and north.

The school buildings are located close to the south-west boundary in order to provide as large a play area as possible on the north and east.

THE BUILDING

The form and character of the school is a simple expression of the plan and the materials of construction. With a view to maintenance, facebrick walling has been used externally. The external facing is of 2½ inch pale buff brickwork. Similar

SOUTH ELEVATION

New English Medium School at Hercules

Aubrey V. Nunn, Architect

golden-brown face bricks have been used internally in all surfaces subject to hard wear, such as the main entrance hall, cloakrooms, lavatories and dados to classrooms. The staff rooms are plastered and coloured cream.

The main natural lighting of the classrooms is from the south—a requirement of the Administration, to avoid the penetration of direct sunlight, while subsidiary lighting is obtained from windows on the protected north side, facing onto the corridor.

The building has a central-heating installation in which all pipe runs are concealed in ducts.

FINISHES

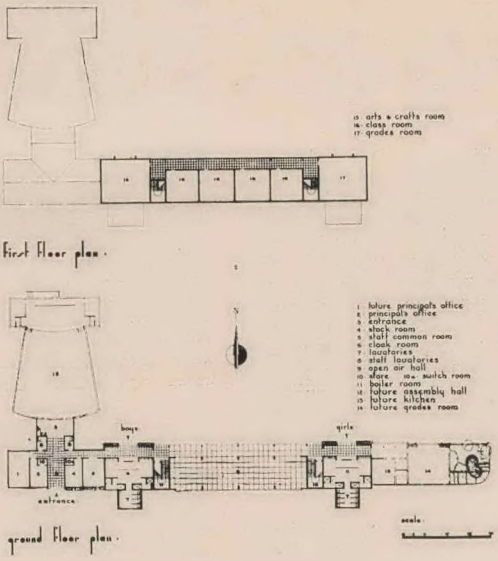
The floor of the main entrance lobby is paved with squared slates. Granolithic paving ruled into small squares is used in the corridors, cloakrooms, lavatories and in the covered play space. Kiaat wood block flooring has been used in the classrooms, grades and art rooms and the staff rooms, finished against a black granolithic margin and skirting.

DETAIL OF THE NORTH ELEVATION

The chalk boards in the classrooms and gradesroom are of slate slabs fixed with a slight inclination to the walls. Each classroom is provided with pinning boards across the rear walls, and with a range of cupboards fixed under the chalk board.

Fresh colours have been introduced in the elevations in contrast to the light coloured face brick surfaces. The circular columns on the north elevation are painted pale green and those in the covered play area are finished in dark grey. The steel windows and entrance surrounds are white and the corridor railings are finished signal red.

The well organised planning and the straightforward expression of the planning in the structure, together with a sympathetic handling of materials and colour impart to this school a praizeworthy simplicity of character and dignity of form well suited to its suburban setting.



MURAL PAINTING

By Le Roux Smith Le Roux
(Director of the Pretoria Art Centre)

A lecture delivered under the auspices of the Transvaal Provincial Institute, in November 1946, at Kelvin House, Johannesburg

There is today a considerable degree of misapprehension about the art of Mural Decoration. Words like fresco, encaustic, tempera, mosaic — not to mention the very word "mural" itself—are so indiscriminately used that they have largely lost their usefulness for the purposes of explanation and identification.

I am very glad, therefore, to have an opportunity of explaining the principal methods of decorating a wall, and the true background and function of wall decoration as these appear to me.

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It is essential to realise that perhaps the most important manifestation in contemporary art is the revival of mural painting. The scope and power of this revival has not yet been fully realised in our country, although there were at one time hopeful signs that mural art would have an opportunity to develop here, with State support, along very robust lines. But since at least one Government Department which handles official mural commissions sees fit to invite *tenders* for such work, and actually specifies the use of oil paint on canvas as the medium to be used, the possibilities of the development of real mural painting are seriously retarded. The essential character of wall painting arises from the inevitable peculiarities of the medium used, which develop in the painter, if his talents truly lie in that direction, a characteristic "mural" outlook. Mural painting is not highly enlarged easel painting, and it calls for a considerable degree of architectonic understanding.

The revival movement is so important because it is the first attempt on the part of painting to come home to the maternal arms of Architecture. Essentially the painting of a specified subject in a specific setting for a special purpose and carried out in a specialised way, mural decoration is achieving that purposeful social and architectural justification which has been lacking in modern painting. It is significant that the revival of mural painting should be contemporary with the expression of increased social function on the part of Architecture itself. It reflects a similar desire for social value through functionalism.

To deal fully with the history of wall decoration would necessitate covering practically the whole known history of art. The desire to decorate wall surfaces is as old as mankind itself, and very often our knowledge of the appearance and customs of ancient peoples, and even of their history, has been based on the remains of their wall decorations. Examples are almost too numerous to mention, and are found in China, Thibet, India, Persia, Assyria, Egypt, Crete, Greece, Italy, and Spain. Even amongst peoples with low standards of employment we see this decorative desire manifested. Amazingly skillful rock paintings and engravings exist in the caves of Spain, South America and, to a very large extent, in our own country. To many people, the recent travelling exhibition of Prehistoric Art, organised by the South African Association of Arts, brought a new revelation and appreciation of the beauty of primitive artistic remains in the Union.

Mural painting as we understand it today has its home in Italy, where it reached its finest expression at the time of the early Renaissance. It had been preceded by the successive traditions of Greek, Roman and Byzantine wall decoration, in the course of which the various techniques of painting on actual wall surfaces became perfected. The traditional processes of fresco buono, fresco secco, tempera and other secco techniques, were in universal use until the end of the 15th Century. The perfection and gradual adoption of oil paint from this time onwards resulted in the virtual disappearance of these early methods. As a medium, oil paint had gained complete supremacy towards the end of the late Renaissance, and the easel picture became for the first time the dominant unit in painting which it remains to this day. It is not generally realised that the portable, unrelated painting is such a recent innovation, the demand for which arose side by side with the growth of the merchant or capitalist class towards the end of the Renaissance. Art inevitably became, like most things, a negotiable and inheritable commodity. It had to be movable, unlike the mural in the Church or public building, where it was virtually communal property. The common enjoyment of art tended to give way to the private commercialisation of it, and by the 19th Century the new moneyed classes had almost entirely superseded the patronage of the

great princes, the churches and the civic authorities, but on nothing like the same scale.

Another point to remember is that the florid architectural styles which followed one another from the late Renaissance onwards, did not seem to require the services of the painter in any case, although we do find the occasional recurrence of ceiling painting, which developed to a dizzy romantic realism which sometimes, even when seen, cannot be believed.

These, then, are some of the reasons, social, technical and architectural, for the unfortunate gulf which appeared between painting and architecture through the disappearance of true mural decoration—that is, the use of a plaster wall as a ground for painting. The inevitable gradual darkening of paintings in oil is one of several reasons why such works where fitted or stuck on to walls in the past have not been satisfactory as architectural decoration, even in the days when people were still under the influence of a true fresco tradition and retained what might be called a mural outlook. Comparatively little was executed in the way of truly architectural paintings, for such a long period—approximately two centuries—that painters themselves were at a loss how to tackle their problem when for 25 years, from about 1840 onwards, a number of large-scale mural undertakings were commissioned by the British Government. They did, however, learn a great deal from the fresco revival in Germany, which had begun some years previously. A group of young artists were determined to recapture the secrets of the past, and in some ways they were extremely fortunate. They were enabled to study in Italy through the kindly assistance of a Prussian nobleman, and on returning to Germany they secured the enlightened interest and active patronage of Ludwig of Bavaria. Consequently, they were able to enlist the finest advice, research and assistance from current chemical science. They largely developed the science of Mineral Painting, which I shall refer to later on, and which is a way of using liquid silicates, such as water glass, as a medium.

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Now this attempted revival of real mural painting in 19th Century England had some very important results. The most ambitious single undertaking from this period was Watts' enormous panel "The Law Givers" at Lincoln's Inn, begun in 1852 and completed in 1859. A large series of frescoes was executed by different artists in what were then the new Houses of Parliament. Within ten years most of these paintings were already showing decided signs of decay. This large-scale failure is undoubtedly the source of the current fallacious idea that real mural painting today, at any rate in Britain, cannot be regarded as permanent. One so often hears that the British climate, coupled with the many industrial gases in the atmosphere, makes it impossible to use wet fresco there. In fact, no artistic failure could have been more widely advertised than this one, with the result that possible patrons of the art, not only in the United Kingdom, but elsewhere in the world, have remained sceptical to this day. Having had the good fortune some years ago to act as an assistant during a technical survey of these particular paintings, conducted by His Majesty's Office of Works, I should like to make one thing very clear. Whereas 80% of the works have been complete technical failures in perpetual need of reconstitution (and seldom worth it from an artistic point of view), there are some, like Watts' "The Law Givers," which only show signs of decay in certain definite parts of the surfaces. There are also a few works in an absolutely perfect state today, needing nothing beyond an occasional cleaning and the attention required by all such works. Now surely, if the climate and atmosphere had the effects generally attributed to them, all the paintings would disintegrate in more or less the same degree. Why should the atmosphere attack one and leave another? The only conclusion one can reasonably draw is that only a small percentage of the works has been executed in a proper manner and has therefore survived, whereas the overwhelming majority have failed because of the incomplete technical knowledge and the inexperience of the painters concerned. Unfortunately, this spectacular failure has entirely outweighed, in official and public consideration, the complete success of the few correctly executed works. In the Peers' Robing Room, a significant contrast is afforded by two panels carried out by the same artist, one in oil on canvas and one in wet fresco, the latter being in a considerably better state of preservation than the former, a fact overlooked by the critics of fresco painting in Britain.

This attempted revival of mural painting, unjustly condemned as a total failure, discouraged not only the patrons but artists as well. But the desire for wall decoration which would be an organic part of the architectural fabric of buildings persisted. For some years we have had increased facilities for studying the methods of the past, for the careful analysis of plasters and media used, not to mention the concentrated study of ancient manuscripts, so often wrongly translated. A new revival was bound to come, and during the last 20 years a great deal has been achieved all over the world as far as painting on the plastered wall is concerned. It has been realised, too, that it is necessary to consider mural painting as a highly specialised branch of the arts, demanding from the artist a long and intensive research, experiment, practice, and a great deal of manual effort.

All mural painting demands careful preparation, and long sessions of work, possibly on high scaffolds. Mounting these is frequently an art in itself, and a talent for the trapeze can be considered a useful addition to the painter's qualifications. Painting a ceiling in position is a very awkward and arduous undertaking. Almost the only way of working is to be stretched out on one's back, and the only manner of coping with the difficulty of the liquid paint running backwards down the handle of the brush is to have, like Michael-Angelo, one or two assistants dipping one's brushes for one.

After every few strokes, a newly charged brush can be taken over without any distraction, but for the final and more subtle parts of such a painting this is obviously not very satisfactory. A dome is perhaps the most awkward space of all on which to work, particularly if it is relatively shallow. The painter has to adjust himself to the constant change of range and the other obvious manual and visual difficulties of drawing on a surface curving within both the vertical and horizontal planes. It is these very difficulties that make such painting interesting and exciting to do, and which gives the result its own particular character. I believe that all technical limitations have a purifying and intensifying effect on art, if they are understood and accepted by the artist. The essential character of mural painting through the ages has been the direct result of the so-called limitations of medium and setting.

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In considering the modern revival of the true mural painting, it is necessary to understand in principle the various techniques of painting on actual wall surfaces. It is necessary to explain certain terms, the meaning of which have changed and become confusing.

The term "fresco" originally referred to painting on the fresh, in other words, the wet, plaster. In early times, however, the word already came to be applied to almost any form of wall painting. To qualify "fresco" in order to limit the word to its original meaning, the term "fresco buono" developed—translatable as real or true fresco. The other mural methods were referred to as "secco"—that is to say, dry painting—and the rather paradoxical term "fresco secco" was reserved for paining on to existing plaster specially wetted for the occasion with lime water.

Developing as it did from mosaic decoration, for which it was only intended to be a cheaper substitute, true fresco retained a certain similarity of execution. The artist draws his work full-size on the rough plaster foundation, and covers with fresh water only so much as he hopes to finish in one day. He undercuts the edge of each section as he finishes it and dovetails the adjoining plaster neatly under the cut edge of the previous day's work. True fresco may be recognised by these joints between the successive bases of fresh plaster. The artist normally arranges his design so as to incorporate the divisions as the outlines of simple shapes, so that these are absorbed into the linear flow of the completed design. *When the actual execution of the painting is begun, the major portion of the work has already been completed.* It is usual to have a full-scale drawing or cartoon on paper as a guide from which to paint. The preliminary rough coats of plaster, usually two of them, would meanwhile have been laid. To make the key drawing on this rough plaster, the principle outlines of the design are pierced through the paper in a series of little holes. A small bag of linen or some such material is filled with a suitable powder colour, and by beating it against these outlines, they are transferred to the wall as a series of little dots, which can then be joined together with fine chalk. In order to retain the cartoon as a constant reference, it is usually fixed to the top of the panel by means of a batten of wood against which it can be rolled up. When the sections of the final plaster are laid, the detailed outlines of the design can be traced on to its yielding surface with a stylus.

In all wall painting, the ground on which one paints is the most important consideration. A wall painting will last as long as its plaster base, all other things being equal. For fresco buono, a lime plaster is used—a mixture of mature lime putty and fine sharp sand free from clay, organic matter or mineral salts. The preparation varies according to the richness of the lime, but it is normally lime and sand in the proportion of 1 to 2, 1 to 3, or even 1 to 4. For the rough coats, a mixture of pounded brick and lime putty can be used, and the finest "intonaco" or final coat is made from marble dust and lime.

Something must be said about the preparation of the lime. After slaking the lime, it should be passed through a sieve into a maturing pit or bin, where it should be left to mature for a minimum period of a year, preferably for much longer. The lime must be of the finest quality and free from sulphur (as a result of being burnt) and from silicates and nitrates. In the grand days of fresco painting lime was left to mature frequently for as much as 80 years. While there is no chemical change in highly matured lime like this, there is a pronounced physical difference which is known to be due to a change in the length and disposition of the lime crystals. This gives quite extraordinary properties to the lime putty. I have had personal experience of handling lime matured for nearly 40 years. The substance is not unlike a slightly unripe cheese, but on being disturbed turns into a liquid, which after a while solidifies again, and appears to have the unique property of attempting to return to its original shape. One could speak for hours on the qualities and properties of the different limes found throughout the world. I have had no less than 26 examples of South African lime tested at the Building Research Station at Watford, near London, at various times, but these have uniformly proved to be of poor quality for fresco purposes.

The pigments used on the wet plaster are powder colours, principally natural earth, and are merely mixed with water or lime water. Providing one has made all the necessary preparations and has a crystal clear idea of what one wishes to do before commencing, which could be described as a characteristic essential of all mural painting, the actual execution is, contrary to the general idea, amazingly free and simple. At the same time, it calls, of course, for skill and confidence. Mistakes cannot be rectified otherwise than by hacking out that portion of the plaster and replacing it with a new section. The best brushes seem to be small-sized hog-

haired ones. The painting can only continue while the plaster is wet, and the work must cease as soon as the plaster begins to dry, otherwise the last touches look spotty and eventually crumble off the wall. A considerable degree of experience is called for in deciding the tones and colours, as the pigments on the wet plaster appear totally different in tone and degree of brightness from the eventual effects when the wall is thoroughly dry.

The chemistry of real fresco is quite simple. Lime—i.e., burnt limestone—is calcium oxide, and with slaking in water it becomes calcium hydrate. After being mixed with sand as a mortar, it slowly takes up carbonic acid gas from the atmosphere and becomes calcium carbonate. It crystallises in the process. Before this action takes place, the plaster has been painted, or perhaps one should say stained, since the pigment penetrates the plaster to some extent. In this way the pigment is firmly held by the crystalline film which forms on the surface.

True fresco has a feeling of breadth and luminosity of colour which makes it the finest painting medium man has yet discovered. The greatest of all great paintings in the past have invariably been executed in this medium. Closely allied to true fresco is *fresco secco*, in which a dry wall, prepared with successive coats of good lime plaster, is thoroughly soaked with lime water after the design has been traced on to it. On to this wet surface the artist paints with his powder colours mixed with lime water. This method is not generally considered to be quite as permanent as real fresco. The reason is perhaps due to the fact that the paint remains essentially on the surface of the wall and does not penetrate the plaster as in the other method. The surface of a badly executed true fresco will crumble like fine powder, whereas a badly executed fresco secco peels off in large flakes, not unlike bad distemper.

Neither true fresco nor dry fresco gives the artist much opportunity of doing detailed work, and it was usual to put in certain refinements in some other medium when the fresco had dried completely. These methods were usually ones in which a binding medium such as casein, the yolk of egg, glue size, or some emulsion was mixed with powder colour. In other words, fresco was usually finished in some form of tempera. Frequently, in fact, only a certain amount of the preliminary underpainting and broad washes were done in real fresco, and the final painting almost throughout executed in tempera, particularly the yolk of egg tempera. Most early mural paintings were executed in a combination of two or three methods, and a great deal of confusion has consequently arisen when writers on art have tried to put these paintings in specific technical pigeon-holes. It was not until the High Renaissance that it became, as someone put it, a popular *tour de force* and finally a complete fetish to execute a painting entirely on a wet plaster without retouching it again in some form of tempera.

One of the most important "secco" techniques is perhaps that of painting on to a wet lime wash with colours tempered with casein. This casein is prepared by grinding together the fine soft white curd of skim milk with a smaller proportion, 1/4 to 1/5th, of slaked lime. The result is a liquid which can be thinned with water. This dilute emulsion is mixed with powder colour and painted on to the wall in much the same way as fresco secco. It combines beautifully with the lime and becomes a hard, almost indestructible substance. It is not particularly pleasant to use since the medium tends to become rather sticky. The final effect has neither the airy luminosity of true fresco nor the pearly tones of egg tempera. It has, however, been used a great deal in the past, especially in Southern Germany. In Bavaria, and in parts of Switzerland, a form of casein painting persists to this day, the casein emulsion being diluted with goat's milk.

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Egg tempera, one of the basic mediums of painting since early Egyptian times, was used a great deal in Italy as a mural method. The basic technique is to mix the yolk of egg with three or four times its own quantity of water, which is then added to powder colour, previously moistened if necessary. Although generally considered to be a medium for small paintings, such as the altar pieces typical of the 13th, 14th and 15th Centuries, I have found it in many ways to be the finest medium for large-scale wall painting I have ever handled. Its cool, pearly tones and streaky, woven-looking texture, are as distinctive as the luminous glow of true fresco. Compared with the latter, it is considerably more difficult to handle on a big scale. Executed in thin, successive layers with fine brush strokes, it is also considerably more laborious. A lime plaster ground, or one of a "dead" natural gypsum, is most suitable for this medium. It is customary to carry out the entire preliminary drawing on the wall in finely hatched diluted Indian ink. A wash of size or diluted egg yolk is put over the entire surface to resist the suction of the wall. Then the underpainting is applied fairly broadly, where possible with a sponge. One, and possibly more layers of colour are painted on top of this, and the effect of modelling and light is achieved by finely hatched brush strokes. The preliminary drawing shows through sufficiently, not only to be a guide, but where necessary to become part of the actual painting. Great care is necessary in handling this medium, and it is essential to develop a certain characteristic flick of the brush to ensure that the brush strokes are even and to obviate the hairs of the brush acting as a sieve for the pigment, which is only suspended in and not dissolved in the medium. Otherwise the brush strokes consist mainly of a thin layer of egg yolk with a blob of insufficiently bound colour at the bottom. Separating the yolk from the white of the egg is quite an intricate business at first, and it requires a fair amount of experience to know whether any given yolk is suitable for painting. Eggs should naturally be fresh, as bad eggs affect colours that have an affinity for sulphur, apart from having

certain obvious social drawbacks. Through the addition of the yolk to oils and varnishes, a variety of emulsions can be made for specific purposes. The technique remains essentially the same as in the basic egg tempera described.

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Earlier on I referred to the science of Mineral Painting, which was developed very largely as a result of scientific research in Germany in the late nineteenth century. In its best form it has become known as Keim's Process, after the distinguished chemist, A. W. Keim, who spent most of his life investigating the chemistry of painting. It is one of the few methods which can be used directly on to cement or concrete providing the cement would not normally be of the type that sweats out all sorts of nitrates or have other impurities likely to manifest themselves in the form of an efflorescence. The choice of colours is extremely limited. The method is briefly this. A suitable wall surface is sprayed with a solution of waterglass, which is really a liquid silicate of potassium (there is also a sodium waterglass, but this is not suitable). On to this one paints with powder colours containing additions of zinc oxide and in some cases also magnesia, the medium being diluted waterglass. Once completed the painting is again sprayed very carefully with waterglass. In this way the pigment already suspended in the silicate is locked up as it were between the two layers of silicate applied before and after the painting. In its most successful form this is probably one of the best media to use for decorating modern architecture. The work has to be simple, almost mosaic-like in conception, with clear final outlines. It has been used with great success as the medium for outdoor murals. Its actual handling calls for such a degree of sureness and swiftness of execution that not many painters like to use it. The medium dries quickly and there is no way of retarding it. One can only paint in at the most two very thin transparent coats. A brush dipped in the specially prepared medium turns, if unattended, into a hard and insoluable stick of glass within two minutes. Prepared waterglass medium was, prior to the war, obtainable in both Germany and Holland but the method has seen its finest application in Sweden.

Another technique which strikes me as having great possibilities of application in modern architecture is wax painting, in which the pigment is suspended in beeswax. The painting is either carried out with the wax in a liquid form through being kept at a suitable temperature or alternatively with wax sticks which one makes oneself and which are not unlike wax crayons. In either case the final fusion of colour is brought about by means of the use of hot spatulas on the actual wall-surface. A steady application of heat at a suitable distance from the surface will drive the wax right into the wall where it remains, impervious to external damp and other atmospheric changes. This type of painting, properly known as encaustic, produces a peculiarly rich, almost burning type of colour, which would, I believe, appeal to many contemporary painters.

I am by no means convinced that Spirit Fresco, a technique invented in late Victorian Britain, has been fully exploited. A suitable wall base is covered with a ground consisting largely of white lead. Over this the painting is thinly carried out in a medium which consists of wax, volatile oils and resin varnish. It was used for instance by Lord Leighton for his two panels, "The Arts of War," and "The Arts of Peace," in the Victoria and Albert Museum, London. These are in a fair state today, but the colour has been largely spoiled by the inevitable darkening of the white lead in the ground. Sulphurous gases tend to turn the white oxide of lead into the black oxide of lead, producing roughly the same effect as if the bright white Whatman on which you have painted a watercolour were to turn into a dull grey.

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Altogether there are about 40 different techniques which could be used on a wall, but I am mentioning those here that seem to be typical and well tried and also some which happen to be individual preferences of mine. Although it is not strictly a method of painting, I should like to say something about mosaic, a medium in which some of the greatest decorative achievements in the world have been carried out, and in many ways the most truly architectural medium we have yet discovered. By this I mean that the individual pieces of mosaic which are built into the wall seem to have the quality of entering right into the structure of the building. Mosaic therefore has none of the "applied" look which makes many types of decoration illogical and unsatisfactory. The art of Mosaic is of considerable antiquity. Perhaps the earliest approach to mosaic, as we use the term, was the faience decoration used by the Assyrians, variations of which soon assumed the appearance of the more familiar forms of this type of decoration. The individual pieces of the mosaic —the tessarae— can consist of a variety of materials. Some are made of ceramic, some are vitreous, some are natural stone or marble pieces, and the great stretches of gold mosaic which form the background of so much of the Byzantine work, consisted of pieces of glass with gold leaf fused into the back. Slightly tinted glass, and various types of gold such as lemon gold, yellow gold, claret gold, etc., provided opportunities for variety.

A great deal of the liveliness of a mosaic does, however, depend on the exploitation of the play of light on to the surfaces of the many substances of which it consists. In ancient times, only floor mosaic had a uniformly regular flat surface. Wall mosaic was full of variety calculated to provide life to the surface and succeeding in doing so to the same extent as the brush-work of a man like Van Gogh. To give an instance of what I mean: In Byzantine mosaic we very often see the golden haloes of angels against the general golden background. In most cases the individual pieces are exactly the same or have very little difference in colour. But by setting all the tessarae of the halo, as opposed to the background, at a downward or upward angle, a silhouette effect

is achieved with a difference of tone that can hardly be believed. The mosaicist of those days collected his tessarae and decided on the general colour scheme long before planning the individual sections. He would make a broad drawing, usually on the floor somewhere sufficiently near the site of the mosaic, and plan out his arrangement of tessarae, mounting, perhaps, a high scaffold from time to time to get an idea of what it would look like from a distance. He would also calculate from this how much he can do in any given day, and divide the work accordingly. Having drawn out the main outlines of the composition on the rough preliminary plaster on the wall, the artist has that section plastered with cement which is to take the first day's work. As a real fresco, this is largely a race against time. The tessarae can only be pressed into the *wet* cement, and once the effect of the colour of the areas between the tessarae become apparent, the work may call for the exercise of a considerable degree of resourcefulness and improvisation. It is this characteristic which gives that abounding sense of life to the normally aloof, cold architectural formalism of the successful mosaic. The mosaicist prefers to work with irregular tessarae, which he can cut, if necessary, with special cutting pliers. In the finest Byzantine mosaics, particularly those very early ones in the Santa Maria Maggiore, Rome, many interesting technical details can be seen. For instance, the pupils of eyes are never round but usually square or diamond-shaped, and an astonishing effect of vitality is given to the mosaic face by having the more or less square pupil of an eye set at a different angle to the nose than that of the other eye.

In their use of simple pure colour divided into tessarae, the Byzantine mosaicists anticipated by more than 1,000 years the discoveries of the Impressionists. They were, without any doubt, as "modern" in their technique and expression as any of our contemporary painters. The names of the artists have in most cases not come down to us.

Like the Ikons of Russia, many church mosaics are intended to be seen by candle or lamplight, the natural flicker of which imbues the broken, glittering surface of the mosaic with a strange spirituality which so well assists in conveying the loftiness of its subject-matter. To attend the Midnight Mass at Santa Maria Maggiore, when these great works are lit as they were intended to be originally, is one of the great artistic experiences in the world. It is a great pity that this form of decoration, which is so eminently suited to modern architecture, should be practised so infrequently, but the high cost of mosaic pieces, particularly gold mosaic, is the chief reason. The art itself has also lost some of its meaning, since it has become customary today for artists to lay out their mosaics on stout sheets of paper, and when finality has been reached in the design, to have the tessarae glued to the paper. The wall surfaces are then prepared with wet cement, and these sheets of paper held up against it and pressed well in with a roller. When this has been allowed to dry for three or four days, the paper is washed off and the design, with a uniformly flat and therefore dull surface, appears in reverse on the wall. The lifelessness of many modern mosaics is frequently due to the use of this insensitive method, and it is seldom that such a great artistic effect is achieved as in the case of the huge mosaics designed by Einar Forseth for the Golden Hall of Stockholm's fine City Hall.

I must, unfortunately, resist the temptation to talk in detail about other decorative methods, not strictly painting, which are suitable for decorative application inside the contemporary building. I feel, for instance, that the use of glass in modern architecture offers possibilities for embossed, engraved and sandblasted decoration which have, as yet, only been partly exploited, and which suffer from the fact that the designer so seldom really gets to grips with his medium and is therefore unable to supervise the execution of his designs. The decorative treatment of metal surfaces provide other great opportunities for the artist, but so far only the Shipping Companies seem to have realised this.

* * * * *

Another type of mural in the revival of which I have been fortunate enough to take a hand, has been the big woven tapestry. It is not always remembered that the woven tapestry owes its origin to the desire for a portable mural. It is the only one which has successfully achieved the dignity of a separate art. Many a castle, sacked and burned out during the Mediaeval Wars, had its decorations saved through the fact that they were portable, could be rolled up and hidden. Some years before the war, the French Government subsidised the great weaving worshops of Aubusson and Beauvais, with a view of protecting the traditional national art of tapestry weaving, which had progressively fallen on evil days. A major sensation was caused when these weavers proved that they could imitate the brush strokes and even the surface texture of paintings by artists like Picasso, Braque, Lurcat, Matisse and Léger. Naturally, these were woven with a very fine thread, and were absolute technical miracles. Fully conscious of the fact that they had nothing to do with tapestry design as such, the French Government nevertheless hit upon this method of awakening world-wide interest in an ancient art form. Very soon famous artists were designing tapestries, which, in spite of the high cost of weaving, found ready purchasers in Europe, in Britain, and particularly in the United States.

* * * * *

Several times now I have mentioned the particular type of design imposed upon the artist by the characteristics of his medium when discussing the problem of true mural painting. If we compare the work of the great mural painters of today, such as Diego Rivera in Mexico, Hugo Ballin in the United States, or Stanley Spencer in Britain, with the work of artists like Giotto, Piero dela Francesca and Botticelli, we find an instantaneous similarity of style and treatment. These were imposed upon the artist by several factors. Mural

painting requires simple and definite outlines for purely technical reasons. In its execution it is largely a collective effort, so that the original designer is compelled to use a type of outline which loses very little when re-drawn or traced by an assistant working with so insensitive a tool as a stylus. There is very little room for highly personal expression in the execution, as in the case of oil paint. The character of the mural tends to be as impersonal as architecture itself. While it may express function, it does not express mood to any great extent. It is perhaps this, above all reasons, which makes contemporary artists uncomfortable in the presence of the true mural, and their work a failure when they attempt to paint a mural in their own way. One of the largest wall paintings of all time was Raoul Dufy's work depicting the development of electricity in the big Hall of Electricity at the Paris 1937 International Exhibition. It seemed to be no more than an endless and slightly magnified repetition of the type of calligraphic painting which is associated with his name. As a mural painting it was unsuccessful and seemed to be lacking in power and architectural feeling. Above all, it had no suggestion of architectural permanence. Many other similar examples could be quoted.

It must be obvious that architectural painting has to differ in feeling, style and conception as much from ordinary painting as architectural sculpture does from everyday sculpture. A much greater emphasis on design is an obvious requirement. The normal source of light has to be taken into account, so that the direction of the light as painted inside the mural can co-incide as far as possible—a factor frequently forgotten even by experienced mural painters. The flow of the design must be such that the painting becomes, not a disintegrating, but a unifying factor in amongst other architectural elements. Calculated distortion must be employed to overcome the effects of the angles of sight. The colour, as a rule, has to be extremely restrained, and the tonality on the light rather than the dark side. One cannot, however, become too dogmatic about these requirements. Very bluntly put, it could be said that the traditional function of the mural is that of telling a story. Mural art has almost always been imbued with some kind of propaganda. I have never been able to subscribe, in consequence, to the current idea that propaganda is inherently a destructive factor from the aesthetic point of view. If I did, I would have to discard as second-rate the great religious paintings of the Renaissance, and the Byzantine mosaics which preceded them, all of which were intended to act as a vehicle for the loftiest type of propaganda. Also to be discarded would then be the Egyptian decorations glorifying the lives and deeds of Egypt's ruling dynasties. Many Greek and Roman works in sculpture and painting would have to be discredited, and coming to our own day, we would then have to make out a case for proving that Commercial Art can never really be a great art. Providing it does not interfere with the artist's primary function of making a wall surface more beautiful, the mural is as good a means of telling a story as any other. Traditionally it has been used to convey certain conceptions on the part of its patrons to the public at large. It is not surprising, therefore, to find its revival at a time when governments and other organisations need as many ways as possible of making contact with the public. For this reason, the mural has played a very large part in all national pavilions at international exhibitions since the first world war. For this reason, too, enlightened governments of countries like the United States, Russia, Mexico, Brazil and Sweden, have been amongst the chief patrons of this art during the present day. The Church, also, shows increasing signs of resuming once again a cultural function through the use of the artist.

One of the difficulties of our time is the lack of some all-overwhelming inspiration as far as subject-matter is concerned. Before and during the Renaissance, the very loftiness of the message which the artist had to convey gave his work a certain outstanding nobility. Some contemporary artists, like Diego Rivera, thought they could find their way out of this difficulty by the development of an intense belief in some socialistic creed. His work, incidentally, remains the most vital visual expression of 20th Century Socialism so far achieved. Where today we have such a tremendous variety of building styles, it is more or less inevitable that the professional mural painter, within the limitations of being true to his own artistic feelings, will work in varying styles to suit the setting. By this I do not mean that he will only paint in some dated style such as Cubism in a highly functional modern building; but there has to be a certain adaptation to surroundings. The fact that the mural normally tells a story, that this is the very essence of functionalism as applied to mural decoration, precludes the artist from using a completely non-representational way of painting. The very beautiful abstracts of some of our modern artists would appear, at first glance, to be eminently suitable as architectural decoration. If anything, they are more like architecture itself than any other form of painting. Unfortunately, as you must all have found, the eye and the mind very quickly exhaust the value and meaning of even a good abstract panel. It palls in a short while and assumes a dated look, very much like some types of so-called "functionalistic" architecture. For those that need non-representational but functional decoration, the decorative map, the industrial diagram and so forth, would seem to offer possibilities. To this day, the map recurs with unfailing frequency as a highly delightful form of decoration.

The mixture of symbolism, documentation, illustration and education which go towards making up the character of the mural, is not one which is easily accepted or understood at first. It frequently tends to confuse as much the academic as the purist type of approach.

At various times, exponents of the modern mural revival find themselves at variance with art critics and even architects

themselves, who judge the mural on the purely pictorial grounds of the easel painting. *Where the function of the mural painter is to decorate merely the surface of the wall, it is quite clear that his mural must remain, in the first instance, a wall.* If the architectural effect of its being a wall is destroyed by too great an insistence on depth, perspective and three-dimensional form, it becomes an uncomfortable thing to look at in its fixed setting. Traditionally, in all countries, the mural has a characteristically flat look, and tends to lead to long arguments about the drawing powers of the artist or his knowledge of perspective. A violent or turbulent design would also tend to destroy the architectonic feeling of its setting and can become extremely uncomfortable for those who have to see it constantly. The slight woodenness, as it has been called, of the average successful mural, is the deliberate choice of its creator. So is the high degree of formalism from which it arises.

I have not wanted to say much about the use of what is essentially an oil painting stuck on a wall, like wallpaper, but unfortunately in our country this is becoming fairly common. It is, in reality, not a way of painting on a wall, but a way of avoiding painting on a wall. Even where the oil painting is a painfully deliberate attempt at imitating the appearance of a real mural, the inherent qualities of the canvas on which it is painted seems to work against it, quite apart from the questions of permanency and so forth. Canvas has never been a truly architectural material. It will never identify itself with the architectural fabric of its setting in the way that a real mural does. The optical qualities of oil paint are far removed from those of true fresco and tempera. The argument that the oil painting is at any rate removable is a very poor one. It is very seldom that we want our murals to be movable, but where this possibility has to be foreseen, the artist can nowadays rely on the use of pre-cast plaster panels or similar truly architectural materials for painting on. Such panels are quite easily removable, but somehow seem to enter into the structure of the building once they are built into the wall.

So frequently the mural is an afterthought on the part of the architect or whoever is responsible for deciding about the decoration of a room. Many architects, confusing in their minds the framed easel painting with the mural, design panels with decorative mouldings around them, closely resembling the frame of a picture, as a space to be painted by the artist. Even in the hands of an experienced mural painter, such a panel is inclined to look "applied." The most successful murals seem to be those which enter readily into the general design of the room, and, where they appear on a wall broken by voids such as windows and doors, absorb these into their general pattern, without, at the same time, dominating the architecture. There is no reason why the mural should ever dominate its setting if it is carried out by an experienced painter with good taste. But more important than perhaps anything I have mentioned is the necessity for architect and artist to come together while the plans of a building are still on the drawing board. In this way, without any of the domination so much feared by the architect, a great many mistakes can be avoided and a great many decorative possibilities opened up. There is no reason why, with our climate, our imposing public buildings, and the intelligence and goodwill of our architects, we cannot, in South Africa, develop an important National School of Mural Painting. My plea, however, is essentially one for architecture once again to become the mother of the arts.

NATAL PROVINCIAL INSTITUTE OF ARCHITECTS

ANNUAL REPORT 1946 - 1947

In moving the adoption of the Annual Report and Accounts. it is my privilege to review briefly the past year's work and particular events.

Last year in my comparative innocence, I stated that we had had a strenuous year on the Executive Committee. How much more arduous the work has been this year is evidenced by the fact that there have been 31 meetings this year as against 20 last year, which was in itself a record. The variety of subjects covered in our discussions and actions fall under the following headings:—

EDUCATION

For the first time in the history of our Institute, we have had a visit from a Sub-Committee of the Board of Education, which examined every University in the Union. Their final report is not yet to hand, but this visit demonstrated clearly that such a Sub-Committee should function as a regular Committee, visiting all Universities annually. Only by these meetings can a check be kept on the general development of the student's side of our profession and the maintenance of reasonable standards. Also your Committee has dealt with a number of cases regarding the courses of ex-servicemen and the special concessions in relation to their courses. The School of Architecture in Durban has grown considerably, but the full-time course has not yet been established, and cannot be established, until adequate facilities both in accommodation and staff are provided. Your Institute gave encouragement and support to the student's exhibition which was held in August and which was of a very high standard; sufficient to draw compliments from the principal of the Natal University College who opened the Exhibition, and from the principal of the Technical College. The Executive agreed to re-institute the gifts of prizes to students, and the Ernest Marsden Powers Medallion is again to be awarded. It has been a recommendation of the Executive to the Central Council, that a register of students throughout the country be kept by the Central Council, and that they become probation members of our Institute after completing their third year of studies. This matter will doubtless be discussed at Congress.

Before leaving the subject of Education, it is necessary to point out that your Central Council has replied or is busy preparing a reply to the Union Government on the policy of immigration to this country in relation to our Profession.

Sub-Committees and Deputations have met a great number of outside public bodies, among them being:—

Electrical Engineering and Allied Trades' Association.
Civil Engineers' Association.
Durban Slums Committee.
Master Builders' Association.
Civic Association.
Greater Durban Town Planning Association.
Building Control.
National War Memorial Health Foundation.
Natal Society of Artists.
S.A. Historial Survey Commission.
Land Surveyors' Institute.
Suggested Association of Clerks of Works.
Royal Visit Decorations Committee.
Elevational Control Committee.
Durban City Corporation.
Building Bye-Laws.

The great number of Sub-Committees that have functioned in relation to this list, embrace people other than members of the Executive, who have wherever possible, been co-opted to assist.

To all these members, your Executive extends its deep appreciation and thanks and any questions that members wish to put in relation to the aforementioned headings will gladly be answered at this meeting.

DISTRIBUTION OF PUBLIC WORK

Work given out by the Province has not yet emerged from the sketch stage, although twelve months have elapsed since Architects were commissioned. Your Liaison Committee has been careful to check up that in no instance has this been due to the Architects, but that the delay has been entirely on the side of the Province, and the attention of the Provincial Authorities has been drawn to this state of affairs. No further work has been given by the Province, who have been asked to prepare their programme as far ahead as possible, in order that a fair and equitable distribution may be made. At the moment the Province has under consideration a Jury of three assessors appointed by our President-in-Chief, for the purpose of conducting an immediate competition for a £300,000 block of offices in Pietermaritzburg for the Provincial Administration. This competition will be open to Natal members only, and your Liaison Committee reports that negotiations with the Provincial Secretary and Architects on this matter, have been most pleasant and satisfactory.

CORPORATION

Members no doubt know that the Windermere Road scheme carried out by a group of Architects, is now under construc-

tion and apart from one crisis which was effectively handled by the Liaison Committee, has proceeded satisfactorily. The £300,000 block of Municipal Offices which was mentioned in the Post-War Planning report of the City Corporation, is now within five or six weeks of issue for competition. The preliminary conditions are already drawn up and the negotiations between the Executive and the Council have reached an advanced stage.

NATIVE AFFAIRS DEPARTMENT

The Secretary for Native Affairs has notified this Institute of their wish to construct a £150,000 Veterinary School for Natives at Ilfracombe on the South Coast. A circular, setting forth details of the project, has been sent to all Members.

THE PUBLIC WORKS DEPARTMENT

The Public Works Department has requested this Institute to state how much of the Provincial work can be undertaken by private practitioners in Natal. Your Executive, after a considerable deliberation decided that a popular answer would be "Let it all come."

NORTHERN RHODESIAN GOVERNMENT

At the moment the Central Council is considering a request from the Northern Rhodesian Government for the handling by private practitioners in the Union of some six jobs totalling £700,000.

CHAMBER OF INDUSTRIES

The Institute has been asked to assist the Chamber of Industries in the planning of an Exhibition which is to be held in September.

NATAL HOUSING BOARD

During the year some 14 firms of Architects assisted the Natal Housing Board by the preparation of plans of small houses for use by ex-servicemen and the low income group of the community, at a specially reduced fee. The fees will be distributed at an agreed date to participating members in the following manner:—

Each member will receive a proportionate share per plan accepted by the Board, but not exceeding three shares per member. After the first distribution a new pool will be started allowing for the re-submission of existing or new plans by old members and for the inclusion of any further members who wish to participate.

PUBLICITY

It will be seen from the foregoing that as prepared for by some of our members in earlier years, the time has arrived when appeals are being made to the profession from all quarters for assistance in their building programmes, and it may safely be said that the standing of the Institute with public bodies is generally very high.

Your special sub-committee on Publicity has been very active during the year, although the fruits of their labours have not yet been fully demonstrated. Considerable work was done in the organisation of film shows when films were booked and obtained, but as a result of various causes these shows have not yet been able to be shown, but will I hope be brought to finality by the incoming committee.

The exhibition of American Wartime Housing, which included the Natal Housing Board exhibits as well as those of the City Corporation, was attended by very large numbers of the public and by a large number of officials from Durban and Pietermaritzburg Municipalities, as well as provincial heads of departments.

The Executive's special thanks are due to Mr. Gunn, who worked so selflessly and arduously in organising and administering the exhibition.

The Pietermaritzburg publicity committee have also organised talks to various public bodies on architectural subjects. Several letters have been written to the press taking up matters of importance in relation to public statements effecting our province. This side of the Executive's activities require broadening and the whole hearted co-operation of all members in addition to the Executive Committee.

SOCIAL SIDE

It was decided to make last year's Social event coincide with the visit of the Education Board's Sub-Committee. It has been generally declared that this function held at the Durban Club was a success and will bear repetition. Your Executive has also offered assistance to the Natal Society of Arts in organising their proposed three Arts Ball, and negotiations are presently taking place on this matter. It is hoped that when the National Congress be held this May in Durban, the social side of our activities will have full scope and the incoming committee will need to devote a good deal of their attention to this matter, so that we can make the visit of members from other provinces to Natal, a memorable occasion.

CENTRAL COUNCIL

The invitation extended by you to hold the next congress here, has been gratefully accepted by the Central Council, and already accommodation for some 100 visitors has been booked or reserved. The dates of the Congress are from the 12th May to 16th May. Two days of this will be devoted to Central Council meetings and two days to Congress Agenda. It has been requested that subjects to be placed on the Agenda should be suggested by members at this meeting.

As your representative on the Central Council, I am now able to report items discussed at the last Council meeting held in Johannesburg in December, which have already been reported to the Executive. They are covered by the following headings:

1. Joint Council for the Building Industry.
2. National Housing.

3. Architectural Competitions.
4. Post of "City Architect" Pretoria.
5. Scale of Fees.
6. Next Congress.
7. Do's and Don't's.
8. Increase in Salaried Members Subscriptions.
9. Public Service Salary Scale.
10. Immigration Policy.
11. Board of Education.
12. Secretariat.
13. Underpinning.
14. Model Conditions of Competition.
15. Student Membership.

Once again our thanks are due to the Executive Committee of the Central Council for their tireless energy in promoting the welfare of our Profession in this country.

SECRETARIAT

As previously agreed at a general meeting, our past Secretary, Mr. Chaplin, was given a £50 cheque and an engraved silver and glass tureen at a meeting of the senior members of our Institute, in recognition of his 27 years of devotion to the Natal Institute affairs. Our thanks are due to Mr. Ritchie, our present Secretary, who has had to cope with an enormous expansion of Executive work. We are extremely fortunate that as Mr. Ritchie is an accountant by profession, the Institute's financial matters are now in apple pie order. However, your Executive has recommended that a special finance sub-committee should handle this side of the Institute's affairs.

Office equipment has been improved this year by the purchase of a duplicator and a filing cabinet, the cost of which will be met by the Central Council's grant for this purpose. The Sub-Committee has had the option of new premises for the Institute in Trust Buildings, where it is hoped to obtain a board room and general office.

Future information on this matter will be available in the very near future.

Before leaving the subject of financial matters, I should like to bring to the notice of members that subscriptions should be paid before the holding of this meeting, as it is at the discretion of the chairman as to whether members are eligible to vote or not under special circumstances. This matter has been fairly loosely administered up to this date, and with the increasing expenditure of the Institute, it may be necessary to tighten this aspect of the Institute's finances. Members can assist enormously by making a point of paying their subscriptions as early as possible.

GENERAL

At this point I must add my very sincere thanks and appreciation to the Executive Committe, who have worked unremittingly throughout the year on matters which are purely to the advantage of the Institute as a whole and should have uncomplainingly shouldered all the extra burdens that have been imposed upon them. No less is thanks due to those members outside of the Executive who have been co-opted on the various sub-committees, and who have given all their best in time and effort, and finally, to all members of this Institute who have maintained their interest in the affairs of the Province as evidenced by their attendance at General Meetings, and by their lively criticism of the conduct of our affairs.

It is the outgoing Executive's firm hope that this interest will be maintained, and that the incoming Executive will be fortunate, as we were, in having the members' fair-minded support.

S. N. Tomkin.
President.

O.F.S. PROVINCIAL INSTITUTE OF ARCHITECTS

ANNUAL REPORT 1946 - 1947

I herewith welcome you to the Twentieth Annual General meeting of this O.F.S. Provincial Institute of Architects.

MEMBERSHIP

I am pleased to state our membership has been increased by the joining of Mr. A. B. Owens and Mr. F. Joubert.

YEAR'S WORK

The year's work of the Institute has been quiet, for the situation in the Province remains unchanged and there were few matters requiring attention.

Members of the Institute are all busy on their own particular office work and there has been no demand for meetings of any special nature.

The National War Memorial Health Roundation.
"Classes" of Membership.
Unprofessional Conduct enquiry procedure.
Building Bye-Laws in relation to Basements of Shops have received our attention.

BENEVOLENT FUND

I am sure we are all pleased to notice the gradual growth of this Fund, which now amounts to £40.

FINANCE

All members have received copies of the Revenue and Expenditure Account and the Balance Sheet; our investments in Union Loan Certificates have a maturity value of £225

and the Bank account and Cash in hand together was £54 1s. 8d. at the end of the year.

The R.I.B.A. Moiety is being revived after its discontinuance during the years of war; this gracious contribution to Local Overseas Institutes, possessing R.I.B.A. members, by that Institute will once again assist our development.

Arrears of subscriptions have a way of increasing but the amount standing at last December (£29 8s.) is the smallest since the year 1937.

CENTRAL COUNCIL

Central Council has continued its useful work for our profession and its Executive Committee has handled an enormous amount of work on our behalf—some of the matters being:—

A National Building Code.

Joint Council of the Building Industry.

Statutory Scale of Fees—on which your Committee is against as there is too great a subdivision into sections which is liable to confuse, provoke misunderstanding, and irritation with clients.

Architectural Competitions.

Architects Year Book—of which a new issue is to be published this year.

National Housing.

Code of Professional Ethics.

"Classification of Membership—where this Province is convinced that our present simple and democratic one Class is sufficient (the fact that there are two taxations, Practising and Salaried is merely an internal domestic rating for subscription purposes). There is only one Official Classification, we are all M.I.A.s.

Congress in Durban. In this connection members are asked to do everything possible to attend this Congress to meet brethren from all over the Union, and by force of numbers attract public attention to the importance of our profession.

GOVERNMENT WORK

The sub-committee on the above has met and our Central Council Representative took some of its difficulties to Central Council and I trust the Committee will report during the ensuing year.

HOWDEN PRIZE

The next award of the above, with the O.F.S. Silver Medal is being handled by the Chapter of Quantity Surveyors, it is hoped they will issue Terms of Competition in the next few months and thus make room for the competition to follow theirs which will be Architectural.

DR. G. E. GORDON LEITH

This Province possesses one of Mr. Leith's outstanding works, the Town Hall, Bloemfontein, and we must congratulate him on the awarding by the Witwatersrand University of an Hon. Doctorate; members of our Profession, one and all, feel how fully this distinction has been earned and how thoroughly it is deserved.

THANKS

We continue to receive copies of the S.A. Architectural Record and the R.I.B.A. Journal and gratefully acknowledge same.

I wish to thank my Committee for their services during the last 12 months, and record my appreciation at holding the Office of President in the past year.

C. Timlin,
President.

CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

ANNUAL REPORT 1946 - 1947

The following is the Board's report covering the session 1946-47 during which period the Board consisted of:

As Practising Members: Messrs. L. C. Austin, A. A. Bjorkman, D. J. Laing, R. J. Law, T. H. Louw, J. O. Quail, P. M. Roos and A. W. Springthorpe.

As Salaried Members: Messrs. S. F. J. Cosser, R. P. Keeling, R. J. C. Prentice and K. Robertson.

The Chapter's office-bearers for the year were: President, Mr. D. J. Laing; Senior Vice-President, Mr. L. C. Austin; Junior Vice-President, Mr. J. O. Quail.

BOARD MEETINGS

Eleven meetings of the Board were held during the year, in respect of which the following is the attendance records:

Austin, L. C.	8
Bjorkman, A. A.	8
Cosser, S. F. J.	10
Keeling, R. P.	6
Laing, D. J.	10
Law, R. J.	10
Louw, T. H.	10
Prentice, R. J. C.	5

Quail, J. O.	10
Robertson, K.	11
Roos, P. M.	8
Springthorpe, A. W.	7

THE CENTRAL COUNCIL

The following Members represented the Chapter on the Central Council of the Institute-and-Chapter during the year:

L. C. Austin (Alternate, T. H. Louw).
P. M. Roos (Alternate, R. J. Law).

Mr. Prentice, in his capacity as Union Government Quantity Surveyor Nominee, has a permanent seat on the Central Council.

THE BOARD OF EDUCATION

The Chapter has three representatives on the Institute's Board of Education, elected in rotation for a period of three years:

Dr. E. J. Hamlin (Alternate, J. O. Quail); L. C. Austin (Alternate, D. S. Mann); T. H. Louw (Alternate, R. I. M. Stewart).

FINANCE COMMITTEE

The Finance Committee during the year consisted of Messrs. P. M. Roos (Chairman), A. A. Bjorkman and K. Robertson.

COMMITTEE ON EDUCATION

The Board is indebted to the following Members who served on the Education Committee during the year, who, by their self-sacrificing work on one of the most important of the Chapter's activities, have done so much to further the interests of the Profession:

Messrs. L. C. Austin (Chairman), J. Castleton, J. S. Hodge, R. P. Keeling, T. H. Louw, G. P. Quail, J. O. Quail and R. I. M. Stewart.

ASSOCIATED SOCIETIES

The following Members represented the Chapter on the Controlling Executive of the Associated Societies:

D. J. Laing (Alternate, P. M. Roos).
J. O. Quail (Alternate, R. J. Shaw).

CHAPTER'S MEMBERSHIP

The total membership of the Chapter, compiled as at the 5th March, 1947, is 234, classified as follows:

Practising solely as Quantity Surveyors	103
Dual Practising Members	21
Salaried Members	81
Retired Members	27
Honorary Members	2

The total membership of the Chapter, as shown in the Statutory Roll, is 234, but attention must be drawn to Regulation 74. Fifteen Members fall under the provisions of this Regulation.

OBITUARY

The Board regrets to record the death during the year of Mr. D. R. Lyne.

NEW MEMBERS

Since the publication of the last Board's Report, 11 new Members have been enrolled:

As Practising Members (4): Messrs. G. E. M. Anderson, D. C. Dove, W. Laurie, R. B. Milford.

As Salaried Members (7): Messrs. R. L. Baragwanath, A. J. Clemons, D. M. Dee, G. H. Mabin, R. A. Marshall, J. J. Pansegrouw, C. Walker.

CHAPTER'S FINANCES

The audited accounts for the calendar year 1946 (copy of which has been sent to every Member) show a surplus of £269 4s. 4d. This surplus has been made possible due to the subscription of Practising Members having been increased from five guineas to ten guineas as from the 1st January, 1946.

With effect from the 1st January, 1947, the subscription of Salaried Members has been increased from three to four guineas, and one of the first duties of the new Board will be the utilisation of the additional revenue thus derived to serve the best interests of the Profession.

The capital of the Benevolent Fund has now reached the total of £608 9s. 11d., and appreciation is recorded of the donations during the year totalling £3 13s. 6d.

Donations amounting to £3 3s., were received from members during the year towards the Education Fund of the Chapter, the total of which has reached £34 14s. The capital of the Education Endowment Fund is now £238 4s., and Members are reminded that contributions to this Endowment will assist in making an annual Quantity Surveying Education grant available in deserving cases.

ROBERT HOWDEN PRIZE

The draft rules governing the conditions and award of the Robert Howden Prize for Quantity Surveying have been aproved by the Board and will be submitted to the Central Council. It is expected that the first competition will be held this year.

CHAPTER'S GOLD MEDAL

The Board has re-instituted the award of the Chapter's Gold Medal to the best Student in the final year of either the Degree or Diploma Course in Quantity Surveying.

The first award will be in respect of the 1946 examinations, and the medal will be presented to the best Student in the Union.

LOCAL COMMITTES

The Cape Town, Durban and Port Elizabeth Local Committees of the Chapter have taken a great deal of interest in the affairs of the Profession in their own centres.

It is the intention of the Board to invite representatives of each Local Committee to attend a Board meeting later in the year, by which time it is hoped that further progress will

have been made with the revision of the Standards System. and the Scale of Fees.

An Annual Grant of £10 10s. has been made by the Board to each of the Local Committees to cover administrative charges and the cost of forwarding 15 copies of each set of their Minutes to the Board.

CONGRESS OF S.A. ARCHITECTS AND QUANTITY SURVEYORS

The next Congress of Architects and Quantity Surveyors will be held in Durban during May of this year.

The Board trusts that as many members as possible will be able to attend this Congress, as matters affecting the profession will be discussed. The Board is making arrangements for the presentation of at least one paper on Quantity Surveying matters.

THE ASSOCIATED SCIENTIFIC AND TECHNICAL SOCIETIES OF SOUTH AFRICA

The Chapter was admitted to membership of the Associated Societies as from the 1st October, 1946, and the Associated Societies took over the Secretarial duties of the Chapter on the 1st January, 1947.

ROLL OF HONOUR

With reference to the resolution passed at the Annual General Meeting held on the 15th March, 1946, the Board has endeavoured during the past year to compile and complete a Roll of Honour. The names are now being finally collated. and the incoming Board. after consultation with the Central Council. will decide the style and manner in which the Roll should be presented.

JOINT COUNCIL FOR THE BUILDING INDUSTRY

The Joint Council for the Building Industry in South Africa, on which the Chapter will have representations, has recently been formed. A Draft Constitution has been framed and will be considered by the incoming Board.

EX-VOLUNTEER STUDENTS

The Board records its thanks to the Profession generally for its co-operation in obtaining employment for Ex-Volunteer Students in Quantity Surveying offices.

RESIGNATION OF SECRETARY

Mr. J. S. Lewis, who had been Secretary of the Chapter for a considerable number of years, tendered his resignation as from the 31st December, 1946. The resignation of Mr. Lewis was accepted with regret, and the Board wishes to record its appreciation of the services rendered by him in the interests of the Profession.

SALARY SCALES IN THE PUBLIC SERVICE

The Board actively interested itself in this subject and was represented on the Institute's deputation to the Minister of the Interior.

LIST OF RULINGS ON PROFESSIONAL PRACTICE BY THE CENTRAL COUNCIL

This matter has been dealt with by the Board during the year, and your representatives on the Central Council have put forward their views.

The Central Council is now editing the "Code of Professional Practice" which will be published in due course, and will be of benefit to the Profession.

LIST OF MEMBERS

The Central Council has decided to publish. in book-form. a complete list of all the members of the Institute and the Chapter, and it is expected that this booklet will be printed in the near future.

APPRECIATION

The Board records its grateful appreciation to the Chapter's Office-Bearers for the untiring manner in which they have worked during the year in the interests of the Profession, and also to the various members who have given a great deal of time in serving on the various Committees, etc., in connection with Building Control, National Housing. Joint Council for the Building Industry. and the South African Bureau of Standards.

THE OLD THEATRES OF JOHANNESBURG

By Cyril A. Stoloff

The most intriguing aspect of early Johannesburg is certainly that of the old theatres, and no other buildings are held in more affectionate regard by the older generation today. Life was rough and primitive in 1886 in the mining camp, but it was not long before it was being served with theatrical entertainment. A barn-like structure known as Fillis' Circus was erected between Harrison and Loveday Streets, and many lively scenes took place there. The figure of Luscombe Searelle, picturesque and dynamic, dominates the theatrical activities of the city of the early days.

In 1888, Luscombe Searelle arrived in Johannesburg with an Australian Operatic company and his own theatre of wood and corrugated iron, which was actually transported from Durban by ox-wagon and coach. When they arrived in Johannesburg the "theatre" was off-loaded from the ox-wagons and Searelle proceeded to erect it. Hedley Chilvers in *Out of the Crucible* relates that "the material blocked the road for days, but the blockade mattered little, for traffic passed easily then by taking detours over the veld through the open ground upon which His Majesty's Theatre and the Carlton Hotel now stand." The theatre was given the title of "Theatre Royal", and stood in Commissioner Street, corner of Eloff Street, on the site where Marlborough House was subsequently built. The auditorium itself was extremely crude, mainly of corrugated iron, with a double-pitched roof with exposed rafters. Decoration was non-existent, and seating was of a movable nature. This rather rough "shell" was obscured from general view by a comparatively elaborate façade which incidentally was not without its "Classical" pilasters. A very commodious bar was also one of the major attractions of the "Royal". The theatre was opened in 1888 with Searelle's productions

Photo: By permission of the Africana Museum

THEATRE ROYAL, 1888. The first theatre in Johannesburg, erected at the corner of Commissioner and Eloff Streets.

of "Maritana", "The Bohemian Girl", and the Savoy Operas. In January, 1891, Mr. E. Sandiford presented the Verdi Opera Company, which enjoyed a long run.

It is unlikely that much discrimination was shown at first in the choice of amusements, for innumerable music-halls and bars soon became legion, a well known source of entertainment being the famous "Amphitheatre". But by 1893, we find a brochure of the day solemnly assuring us that, "Johannesburg, having taken its place as THE most important city in South Africa, is apt to be critical concerning its amusements and captious as to their variety."

The next theatre erected in Johannesburg was the Globe, in April, 1889, in Ferreira Street, corner of Fox Street, some two blocks to the West of Sauer Street. The main entrance was opposite Heights Hotel, the first in Johannesburg. The theatre was a brick structure with a corrugated iron roof, and wooden boarded ceiling taking the slope of the roof rafters. The façade, as usual, completely obscured the auditorium, and consisted of a series of "Classical" balustradings, four full height pilaster, and a central triangular pediment crowning a gable with side scrolls. The words "Globe Theatre" were in high relief just below the pediment. The auditorium was rectangular in shape, and there was no slope of any nature in the wooden floor, which was covered with a highly coloured carpet along the central aisle. The stage was three feet higher than the auditorium floor, and was covered in with thin vertical boarding. The sixteen footlights were visible along the front rim. The theatre did possess two "boxes" heavily draped and elaborately upholstered on each side of the proscenium arch, and there was, in addition, a small gallery and circle. The proscenium arch was decorated in gilt, and the "backdrops" consisted of an idyllic lake scene, with two Classical figures on each side. The sole lighting to the auditorium was by means of small chandeliers consisting of three globes in separate shades. Seating was in long rows attached to the floor; provision was apparently made for the serving of refreshments, as narrow "counters" are fixed to the backs of each row of seats. The theatre was opened with Mr. Thorne's Dramatic Company on the 24th June, 1889, this being followed by a series of Gilbert and Sullivan Operas on the 23rd September, and a Shakespearean season from September to October 1st. A disastrous fire destroyed the entire building in October of that year.

It was decided to rebuild the Globe on a much larger scale, and in 1891 foundations were commenced. The building was on two sites, extending from Commissioner to Fox Street, and also fronting onto Ferreira Street, as had the first Globe. The construction of the auditorium involved the use of several steel girders, as the stage was of considerable proportions. The roof over the auditorium itself was of wooden trusses covered with corrugated iron. The "coffered" ceiling was decorated with geometric patterns. The façade of the second

GLOBE THEATRE, 1889, at the corner of Ferreira and Fox Streets. An exterior view of the first theatre prior to its destruction by fire.

Photos: Africana Museum

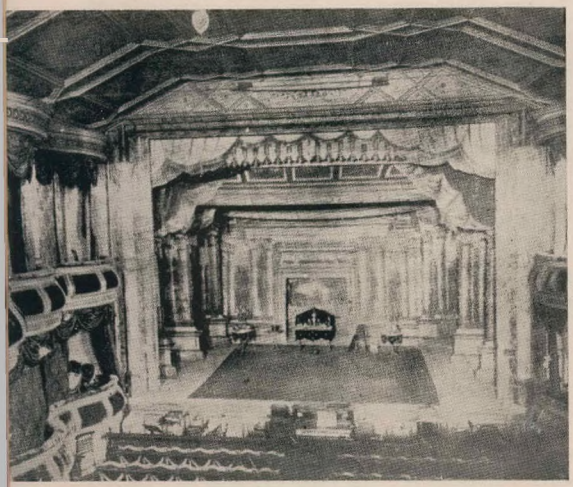
The interior of the Globe Theatre.

Globe Theatre was much more detailed than that of its predecessor. The treatment was similar, as it was purely a thin frontage to the large auditorium itself. Pilasters were Corinthian, pediments were profuse, and Grecian urns were apparently the major feature. There was an urge for the showy display of prosperity which was becoming a characteristic of the Late Victorian period. The main entrance was sheltered by a projecting cannopy, and visitors to the stalls passed through a little conservatory filled with evergreens, which in turn lead into the "Winter Garden". There was also an entrance in Ferreira Street, opposite the new Heights Hotel, which is still in existence today, its name having proceeded through a number of vicissitudes, including Balmoral Chambers, Federation Buildings, and today, New Court Buildings. The auditorium was constructed on novel lines, the "pit-stalls" being separated from the "stalls" by only a walnut wood

THE FIRST EMPIRE THEATRE, 1894. The illustration shows the exterior which faced on to Commissioner Street. This was originally the second Globe Theatre, built in 1892 to replace the earlier theatre of the same name.

Photos: By permission of the Africana Museum.

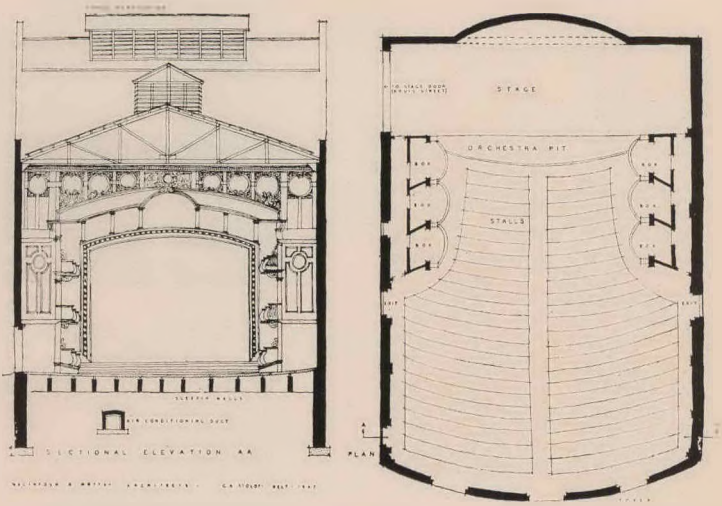
BELOW: The interior of the first Empire Theatre.



partition, the gallery being just behind. There were eight boxes in all, four stage boxes and four upper ones. The upper portion of the house was devoted to the "Grand Circle", which was horseshoe shaped. The stalls were upholstered in dark blue leather, with white and gold backs, while the boxes were upholstered in Royal blue velvet plush with gold trimmings. The spacious Foyer was in red plush, with ornate gilding. At the time, a famous feature of the auditorium was a great chandelier consisting of 40 lights, which were, incidentally, of 16 candle power. The proscenium was 30 feet wide, by 22 feet high, and rectangular in shape, and was profusely decorated in gilt mouldings. The "act-drop" was of "St. Mark's, Venice", while there was in addition, a series of "perspective" scenery units, similar to those used in early Renaissance theatres in Europe. The curtains and pelmets were of Royal blue plush. The stage was lighted by 35 electric foot-lights. The height from the floor to the gridiron was 46 feet. There were eleven dressing rooms, five under the stage, and three on each side. The theatre was designed with a fairly reasonable regard for fire regulations, there being nine exits in all, the capacity of the theatre being 800 people. The Globe Theatrical Syndicate leased the theatre in 1892, and the theatre was opened on the 8th June of that year, with the Lyric Opera Company, which presented shows until the 5th May, 1894. The theatre then closed down for a period, while negotiations were proceeding for a change in the ownership. In July, 1894, the founders of the Empire Theatres Company, S.A. (Ltd.) entered into arrangements for the lease of the Globe Theatre, which was renamed the "Empire Palace of Varieties". Thus the first Empire Theatre in Johannesburg came into being, and was formally opened on December 1st, 1894, with a programme of famous British variety artists, including W. C. Fields, Marie Lloyd and Kate Harvey. The Empire remained continuously open from 1894 until 10th October, 1899, when it was reluctantly closed by order of the Transvaal Government, owing to the declaration of war.

With the signing of peace, the Empire was re-opened on 26th May, 1902. Fire again destroyed the stage after the performance on 19th November, 1903, but the auditorium was saved by the effectiveness of the fireproof curtain, which became an innovation in theatres of that period. For some time, while the stage was under repair, the overseas companies played at the Gaiety Theatre, over the road from the Empire, in Kort Street. It was built in 1893, and was housed in Metropole Buildings, which still exists today, although the theatre proper has been converted into a wholesale grocer's shop! It was a very small theatre, but this did not prevent

OLD EMPIRE THEATRE · JOHANNESBURG · 1906



THE SECOND EMPIRE THEATRE, 1906, situated at the corner of Commissioner and Kruis Streets. McIntosh and Moffat, Architects.

it from contributing very largely to the great fortunes built up entirely in South Africa by Mr. Leonard Rayne, one of the earliest lessees of the Gaiety, who stated on one occasion: "I had £90,000 in the bank before I was 30 years of age—most of it was made at the old Gaiety Theatre!" Kate Vaughan, the well known dancer of the London Gaiety, appeared at the Johannesburg Gaiety.

The last performance at the first Empire was on the 12th May, 1906, and some years later, the building was demolished. The owners desired a more central site for the new Empire, as that portion of the town was not being developed, even although it was the original site of "Ferreira's Camp" in 1886. A site was purchased, corner of Commissioner and Kruis Streets, upon which there was a 400 feet frontage. The architects, Messrs. McIntosh & Moffat were commissioned to design a theatre, equivalent in size and comfort to any of the overseas theatres. It should be borne in mind that at this stage (1906) Johannesburg was a comparatively large city with a population of 160,000. Many large buildings were at this time completed, including the Carlton Hotel, Corner House and Rand Club. The architects, however, proceeded on a special tour of England, America and the Continent, studying conditions in theatre construction, and latest methods that would be applicable to South Africa. The building was commenced on 1st April, 1906. The basement included a Billiard Room, while there were shops and a bar on the ground floor, and offices in the upper two floors. To all intents and purposes, it appeared to be a very ordinary office building of the Edwardian period—simple cast iron pillars, plastered wall surfaces, and large sash windows. The only decoration occurred in a few turrets and gables. The only indication that a theatre lay beyond the offices, were the main entrance foyer in Commissioner Street, and the stage door in Kruis Street. The second Empire, was, for the period, a very luxurious one, and most certainly a very

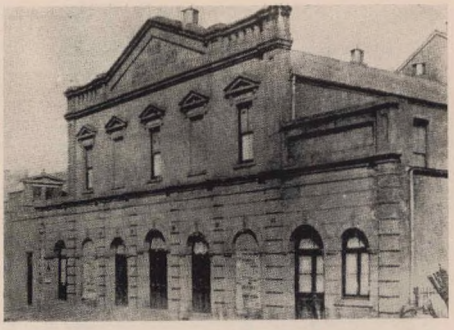


Photo: Africana Museum

STANDARD THEATRE, 1891. The exterior prior to the addition of the Arcade and the present shop and office buildings.

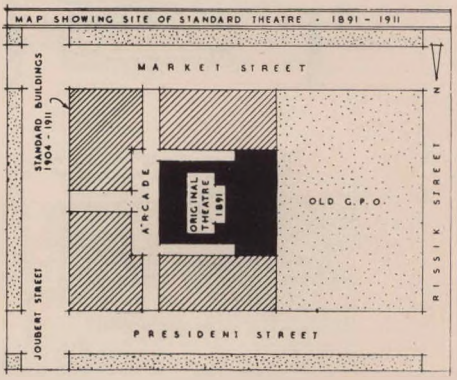
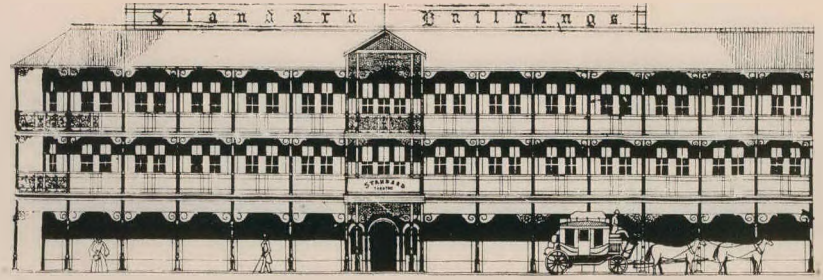


Photo: C.A.S.

Arcade entrance seen from President Street.

Photo: J. Biggar

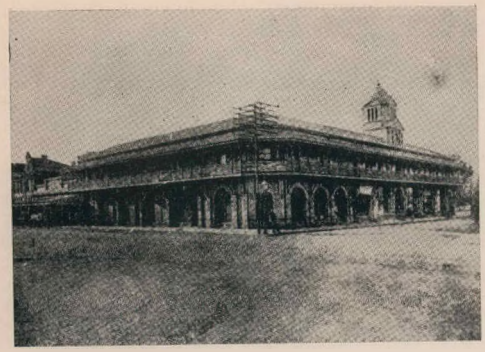
STANDARD THEATRE, after reconstruction in 1911, seen from the corner of President and Joubert Streets.



STANDARD THEATRE -(1891 - 1911) - TYPICAL "LATE VICTORIAN" FAÇADE

charming one. Many will remember it today, for it was only demolished in 1936, to make way for the third and present Empire. There was accommodation for some 1,000 people, there being 18 stage boxes, 375 "fauteuils", 250 dress circle and balcony stalls on the first floor, and 300 gallery seats. It was horseshoe shaped, and similar to the Opera House in Paris, the Metropolitan Opera House in New York and the Covent Garden Theatre in London. There were lounges and bars on all floors, and both these and the theatre were beautifully fitted. In the "crush room" were telephones and writing desks, adjacent to cloak rooms. The Main Entrance Hall was 16 feet wide, the walls and floor in black and white marble. A particular feature of the internal fittings were the exquisite Wilton carpets, of which there were 2,000 yards. The colour scheme was in green and gold, and the boxes and proscenium arch were elaborately decorated with gilt mouldings in the style of the French "Second Empire" period. The entrance to the main stalls and circle was in Commissioner Street, while the Private Box entrance and the Gallery entrance were in Kruis Street. There was

The delightful and intimate interior of the Standard Theatre, looking towards the stage and boxes from the Upper Circle.



HIS MAJESTY'S THEATRE

Photo: African Consolidated Theatres, Ltd.

The illustration on the left shows the building in 1903, known as Goldreich Buildings, designed by McIntosh and Moffat, seen from the corner of Commissioner and Joubert Streets. The illustration on the right shows the building after reconstruction in 1934.

an actors' "Green Room" in addition to the dressing rooms. The theatre was equipped with fairly modern appliances, for it is indeed enlightening to learn that a "sprinkler" installation was provided for the entire theatre, in addition to the fire proof curtain. There appears to have been a system of air-conditioning, whereby electrically-driven fans were located below the stage, these providing fresh air, which was conveyed to all parts of the auditorium by means of ducts. Exhaust fans located in the roof drew out the foul air from the circle and the gallery, while gratings under the stalls served a similar purpose. There were two separate electric services in the theatre. The contractors were Gabriel & Ballantine, while the seating, upholstery, draperies and curtains were by Gordon & Company of Birmingham, England. Many of the world's greatest artists appeared on the Empire stage, including Sir Harry Lauder, hailed by the newspapers in 1920 as "Harry Lauder at last", George Robey, England's master of broad comedy, Sir Seymour Hicks and Ellaine Terris in 1911, irresistible and fascinating Irene Vanbrugh in 1923, Peter Dawson in the following year, and Owen Nares in 1926. In 1925, the incomparable and ethereal Anna Pavlova danced in Johannesburg like an inspired being. In 1928 Sybil Thorndike presented Bernard Shaw's "St. Joan" while Phyllis Neilson-Terry charmed audiences as "Sweet Nell of Old Drury."

The Standard Theatre is one of the best-loved landmarks in Johannesburg, a building rich in historical association, which remains, even today, the focal point of dramatic activity in the city. "In the alternate mud and dust of the early mining camp, the directors of the Standard Building Company optimistically dug the foundations of the theatre. (The founders of the company were Emmanuel Mendelsohn and Robert Stuart Scott, who were also proprietors of the 'Standard & Diggers' News'.)"

After many set-backs, the Standard was opened on October 12th, 1891, and vast crowds gathered to watch the lucky ticket holders, and half an hour before the curtain was due to go up, the theatre was packed. At 8.30 Mr. Dan Godfrey (later Sir Dan Godfrey of the Bournemouth Orchestra) led the orchestra in the "Volkslied" during the playing of which Captain Von Brandis appeared on the stage, declaring the theatre open, amid ringing cheers. The curtain then went up on "La Cigale." The building was on a site fronting onto Market, Joubert and President Streets and when first constructed in 1891, was without the covered portico in front of the main entrance. In 1911, the theatre was remodelled, and the building as we know it today was constructed. An outer structure of shops and offices was constructed around the theatre, with an "arcade" link from Market to President Street. The external features were the cast iron railings and balustrading, which are typical of the period. The pillars of the verandahs are profusely decorated with varying stock motifs. The theatre originally consisted of stalls and circle, but a gallery was added at a later date. It is difficult to imagine a more intimate and delightful theatre, and at no other place in Johannesburg is there more atmosphere of the old days, in spite of the fact that there are no longer red plush seats, great red velvet curtains both to the stage and the boxes, and shining gilt mouldings. The Standard has been the setting for opera, drama and comedy, and colourful personalities who moved across its stage include H. B. Irving, Freda Godfrey ("Old Heidelberg"—1908), Sir Frank Benson, Amy Coleridge ("Sign of the Cross"—1910), Leonard Rayne ("Hery of Navarre" and

Raffles" in 1908), Oscar Asche ("Kismet"), Ada Reeve ("Variety"—1909) and an Opera Company of 60 artists, whose repertoire included "The Old Guard", "l'Enfant Prodigue", and "Girouette".

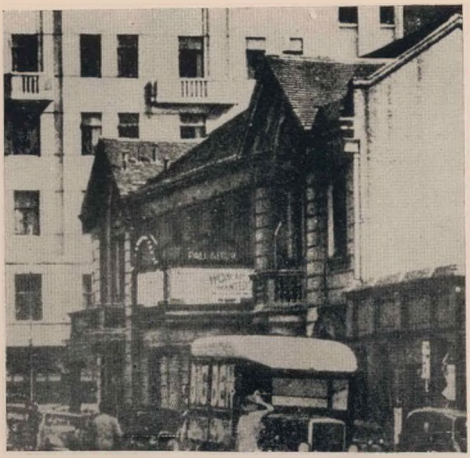
The old His Majesty's Theatre was situated in Commissioner Street, with entrances in Joubert Street, and stage door in Fox Street. It was a simple double-storeyed building, without a verandah when first opened. Subsequent remodelling included a concrete verandah in Commissioner Street. Seating accommodation was provided for 1,100 people, the stalls and dress circle entrance in Commissioner Street, and gallery entrance in Joubert Street. The walls of the entrance foyer and staircases were in Italian marble, and in all there were 14 exits. Ventilation was provided by electric exhaust fans, while for warming the theatre, there was a low-pressure system with radiators. A contemporary record notes that: "Four or five different coloured lights are at command, and, by the touch of a lever on the switchboard, the stage can be transformed from total darkness to a brilliancy at least five times greater than that of any other stage in South Africa." The stage itself measured 58 feet by 38 feet, and was 62 feet from floor to gridiron. The proscenium opening was 33 feet by 24 feet. There were 16 dressing rooms, and a Green Room. The furnishings in deep crimson were carried out by Messrs. Shoolbred of London. The "drop-scene" was painted by Mr. Howard Pym, and represented "Springtide". The architects were Messrs. McIntosh & Moffat. The opening performance was held on July 11th, 1903, when the Royal Australian Comic Opera Company, consisting of 75 performers, staged the spectacular extravaganza, "Djin-Djin". The owners of the theatre were Messrs. B. & F. Wheeler. In 1916, Ada Reeve featured in Musical Comedy, and presented "Floradora", "The Duchess of Danzig" and the "Merry Widow", which had the longest run in South Africa—eleven weeks. Subsequent shows included Leonard Rayne's Shakespearian Festival from September 10th-15th, 1906, "The Lyons Mail" (H. B. Irving—1908), Gilbert and Sullivan Operas in 1906, the Wheeler-Edwardes Gaiety Company in 1909, Marie Studholme in "Miss Hook of Holland" in 1911, "San Toy", "Belle of New York" and Oscar Strauss' "Waltz Dream" in 1912, and "Les Cloches de Corneville" in 1908. In 1918, the famous British actress, Marie Tempest visited the city, and appeared at the Armistice celebrations at His Majesty's.

In 1912, the Palladium Theatre in Simmonds Street, came into being. The theatre was originally evolved from the old Tattersalls and Stock Exchange Building, when it was a "bioscope-vaudeville" house called the Coliseum. When the theatre was reconstructed in 1912, telephones and loudspeakers were installed in each dressing-room, in order to give the players their cues with the utmost efficiency. "The interior emerged as a triumph in vieux rose; the spectacular drop-curtain was painted by William Telbin and—'pièce de resistance'—the foyer boasted a circular sunken garden. The

OXFORD THEATRE (Sanderson's Buildings), 1903, on the corner of President and Harrison Streets.

Photo: C.A.S

GAIETY THEATRE (Metropole Buildings), 1893, situated in Kort Street, off Market Street.



PALLADIUM THEATRE. 1912.

proscenium was surmounted by a full-length mural in low-relief of 'A Reading from Homer', while the curtains were in purple velvet". The administratitve portion of the theatre was simply a double-story affair. with a tiled roof. and the entrance was covered by a portico. An early record of Johannesburg notes: "The exterior of this stately building is an eloquent testimony to the wealth and energy of the citizens of Johannesburg. who. in such a few years. have raised so grand an edifice. The interior is roomy. comfortable and elegantly adorned and in unison with the impression created by the outside of the building". Ethel Irving appeared in the opening performance in 1913.

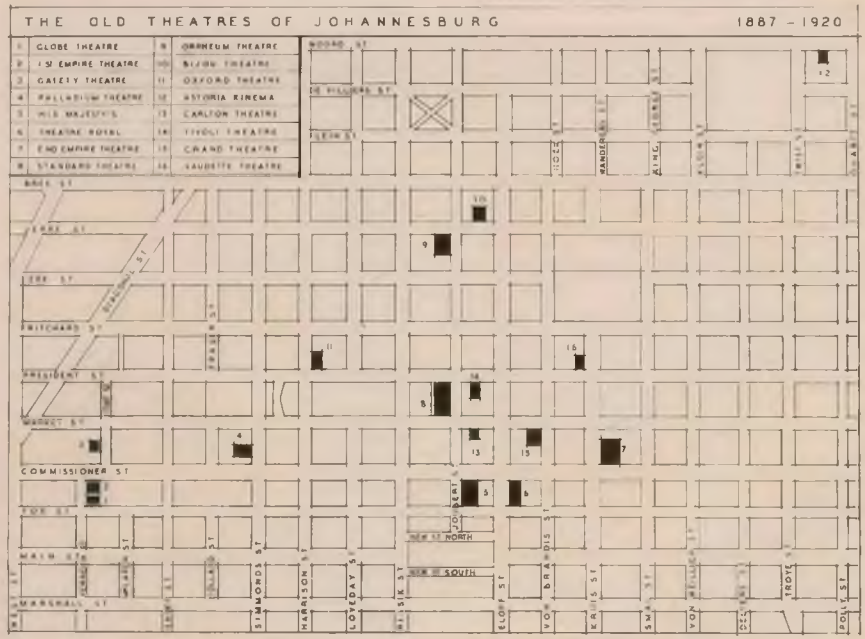
The post-war period of 1919 saw the birth of "Jazz" which found expression in variety and revue programmes. as well as the film. The first revue ever seen in South Africa was staged at the old Bijou Theatre in Jeppe Street. and was called "P.O. Box 1. Johannesburg". this closely emulated the revue model of France. At this stage many theatres of a smaller nature were erected in the city—the Tivoli in President Street (present Henderson's Buildings). the Grand. corner Market and Von Brandis Streets. and the Carlton in Market

ORPHEUM THEATRE. 1912, built on the site of the present Anstey's Buildings, corner Jeppe and Joubert Streets. Architect, Allan Monsborough.

Street, where one of the proprietors was shot before the door during the 1913 riots. The old premises of the Y.M.C.A. in President Street was converted into a theatre in 1912, under the name of Vaudette. The Astoria in Noord Street will long be remembered as the scene of the first colour "talkie" film, "Rio Rita". In 1926, the first film with synchronised sound, "Don Juan" was screened at the old Orpheum, that great "Neo-Classic" structure, corner of Jeppe and Joubert Streets, on the present Anstey's site. The first musical sound film, "The Singing Fool" was shown at the Bijou. In 1913, Mr. L. W. Schlesinger entered the entertainment field of South Africa, and there followed the amalgamation of the Empire Company with African Amalagated Theatres, and the absorption of all theatre companies in the country. African Film Productions was launched, and in 1916 the famous film "Die Voortrekkers" was made. (In 1898, the first films, called "Edison's Living Pictures" were instituted as the concluding item in a variety programme at the first Empire Theatre.) Today, the last remaining link with these colourful theatres of early Johannesburg, is the Standard, and is a good indication of the great heritage which we have lost.

Photo: F. Fisher

BIJOU THEATRE, 1912, in Jeppe Street, diagonally opposite the Orpheum, scene of the first revue in South Africa, and the first musical sound film, "The Singing Fool."



THE WORLD OF ARCHITECTURE

By DONALD PILCHER

THE RECONDITIONED EYE

The "Architectural Review" has celebrated its fiftieth birthday by breaking the silence which it has hitherto imposed on itself on matters of editorial policy. Those who have been mystified, or disgusted, at its periodical dallying with gravestones, lichens and Egyptian Revival villas will find in the January issue of the "Review" a well argued, and beautifully presented, exposition of the place filled by these whimsies in a considered editorial policy. What emerges most clearly from this self-examination is the "Review's" consistent devotion to the visual revolution which has taken place during the last hundred years: for in seeking its origins we must go back at least as far as the foundation of the Pre-Raphaelite Brotherhood in 1848. Since its first issue in 1896 the "Review" has faithfully followed the main stream of this movement which to-day includes a number of "isms" among its tributaries. It is significant that in the nineteenth century it was a group of painters who first set out to explore a contemporary vision, and the "Review" has always looked to The Painters as the shock troops of the visual revolution. A most original field of vision was, for example, explored when, in the summer of 1937, J. M. Richards and John Piper took to their bicycles for a fortnight and came back with a diversity of illustrations of seaside buildings and significant nautical adjuncts which were later embodied in articles on "Black and White" and "The Nautical Style".

Two directions particularly have been followed in fulfilling this self-imposed task of visual re-education. In one, there lie the forms of contemporary industrial technique. In the other there is the folk art, free as it is of all academic or mannered implications, the analysis of which accounts for many of the articles which produce such an effect of bewilderment on otherwise sympathetic subscribers. The former, of course, is international in its vocabulary and contributes to the standardization of much contemporary design. The latter is local, and so indicates a means of achieving individual character in architecture. In an article "Architecture and Urbanism" in "Progressive Architecture" for February, Le Corbusier, for example quotes his advice to architects in Brazil, suggested that they should make use of the local granite in their designs and, as he says, . . . "combine it with the blue and white majolica which suits the architectural folklore of your mother-town Lisbon." This successful reconciliation of machine technique with the forms of folk art is now a familiar feature of Brazilian architecture, and in fact provides an oblique vindication of the policy pursued by the "Architectural Review."

RIO DE JANEIRO AIRPORT

A splendid product of the approach outlined above is the new airport at Rio de Janeiro illustrated in the March issue of the "Architectural Review". The architects, Marcelo and Milton Roberto, have here used a more extensive range of materials than those suggested by Le Corbusier, but granite has been used as facing to at least one large uninterrupted area, while mosaic tiles of various colours are used both for exterior facing and as finishing to the interior wall surfaces.

A rough summary of an elaborate plan shows its main elements to be as follows. On the ground floor: a large area for general circulation, with neat and direct access from central area to runway apron. Here passengers and luggage follow parallel courses. Passengers arriving from overseas lines are separated from those using internal lines. The former (incoming) require customs examination, so the customs counter is zoned together with a large space for freight examination. Numerous shops, coffee stalls, sanitary groups, etc., are provided on this floor: also a separate section for the handling of air mail. The Mezzanine floor contains offices sufficient to accommodate fifteen air lines, also a restaurant and bar (to seat 1,000) in a position picked for its commanding views of the airfield and Guanabara Bay. On the Third and Fourth floors are departmental offices. A separate wing contains the communications and meteorological section. This two-storey block stands on *pilotis* and is linked to the main building by a canopy, the whole forming an elaborate porte-cochère.

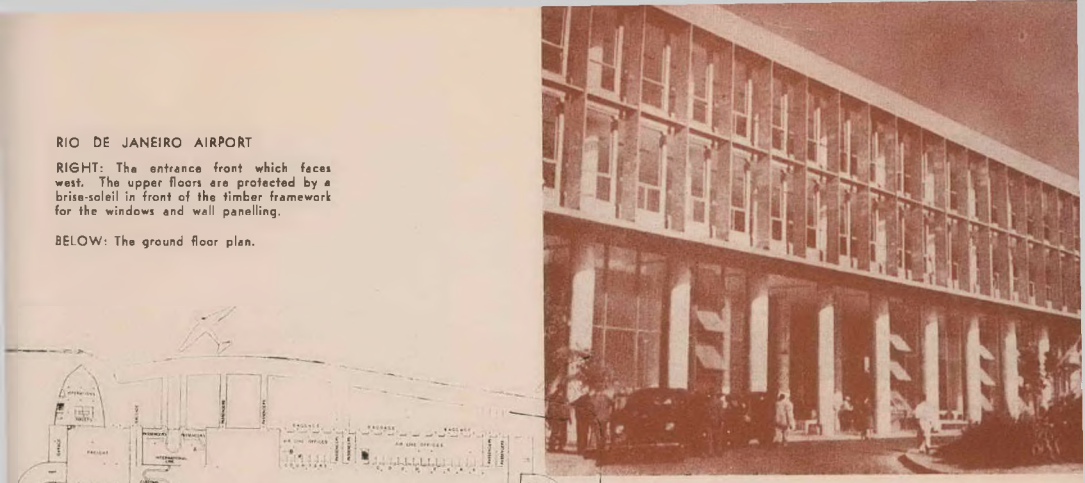
The illustrations show the building in an incomplete state, but the plan promises a free and most imaginative handling of space in the numerous shops, offices and counters of the ground floor: also in the various ramps and stairs which serve the mezzanine. A dynamic illustration of one of these is given a full page plate.

A regular structure of concrete columns with a double floor slab composed of main and secondary beams runs throughout the building. The upper floor slab is formed by the compression section of the beams with the interstices completed by precast concrete slabs. The lower floor slab, which only carries its own weight, is cast together with the beams. All services are carried in the space between the slabs. The

RIO DE JANEIRO AIRPORT

RIGHT: The entrance front which faces west. The upper floors are protected by a brise-soleil in front of the timber framework for the windows and wall panelling.

BELOW: The ground floor plan.



Illustrations on this page are from "The Architectural Review," March, 1947, and those overleaf are from "Progressive Architecture," February, 1947.

column spacing of 16 ft. 5 ins., longitudinally and 20 ft. or 27 ft. transversely, interrupted only at the area of maximum circulation on the ground floor. Here an ingenious modification of the structure secures an uninterrupted span of 65 ft. 6 ins. The structure here is an adaptation of the Vierendeel Frame, the columns on the upper floors combining with the grid of beams to form a continuous truss over the open area. This seems to offer a remarkably economical means of obtaining this large span. The roof construction is also an interesting one. Here the double floor slab is covered with a three-ply waterproof layer of felt and asphalte, on which concrete slabs are laid and a final layer of heat insulation provided by a 13 inch layer of earth. In this a landscape garden has been planted, designed in the highly individual style evolved by Roberto Burle Marx.

Having approached garden design by way of painting, the most arresting feature of Burle Marx's gardens is their use of pattern, forms of progressive counterchange and imbrication being interwoven in designs which hark back insistently to Hogarth's "serpentine line of beauty", the inspiration of so many of the early landscape gardens. At the same time the third dimension plays an important part in these gardens, plants and shrubs being placed above and below eye-level in positions in which their individual quality of mass or silhouette can be appreciated. Not much can be anticipated from the plan of the airport roof garden, but it can already be seen that the ground floor garden, also laid out by Burle Marx, contributes appreciably to the architectural scheme. An elaborate water garden is apparently laid out in front of the meteorological block (and possibly reflecting it), while parterres flow around the *pilotis* which support the upper floors, the whole forming a landscaped introduction to the main entrance. A strip of planting also runs along the whole length of the main facade, and this barrier, incorporating many of the incredible varieties of tropical plants which have been domesticated by Burle Marx, must form a most vital decorative frieze when seen through the glass wall of the ground floor.

The external envelope of the building is an elaboration of the type already established by progressive Brazilian architects. The whole building is enclosed in a wood and steel mesh whose voids are filled either with glass or with panels consisting of an inner skin of wood and an outer of fibrocement. The photographs show only one of the main elevations, and that in an unfinished state, but here the external enclosure already described is protected by a deep and continuous sun baffle on the upper stories, which will apparently be fitted with adjustable louvres later. Of the practical efficiency of these sun baffles there can be no doubt, and the visual effect is overwhelming. Viewed from the outside, this elegant protective guard to the membrane behind gives a most powerfully modelled facade. Seen from the interior it provides that introductory framing to exterior space which is often uncomfortably absent with the continuous glass facade.

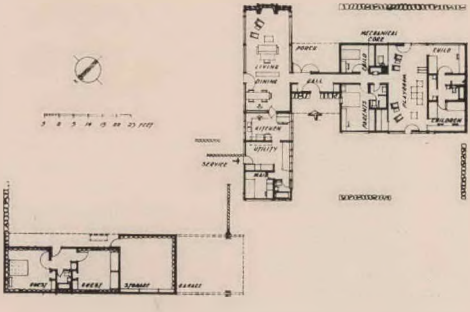
The living room wing is on the left, the guest house is on the right.

THE GELLER HOUSE

"Progressive Architecture" for February contains a fifteen page study of the Geller House on Long Island; architect Marcel Breuer. Marcel Breuer is still one of the most successful exponents of Bauhaus theory which, starting from a study of the structural properties of materials and the exploration of their formal possibilities, aims at the "Einheitungswerk", a design consistently expressive of contemporary building technique. The Geller House is a fine example of this approach. But while in the handling of materials to definite formal ends it reveals many points of the greatest interest, some of which will be examined at greater length, the final result is not altogether above criticism: and this even making allowance for the fact that the building may share the misfortunes of those of an earlier apostle of the "Einheitungswerk". Robert Adam, in not being particularly photogenic. Groupings of similar forms, particularly in the houses of Douglass Cowin, have probably been used to build up more consistent compositions in recent examples in this country. The larger volumes which fall to the children's bedrooms for example, seem inappropriate in this case. One point however which must be bourne in mind in studying the general views is that the design is composed of two buildings, the main block of the house and a subsidiary block containing garage, store room and guest rooms. The two are linked by light screens formed of vertical wood louvres, and such a composition must stand or fall by its final effect as a group, the interval between the units making a positive contribution to the spatial synthesis. In other words this is to some extent a "picturesque" composition whose overall effect it is difficult to capture with a camera bent on recording individual views of the house.

The buildings are grouped to give privacy from two busy roads while, in the house itself, the first consideration has been to zone the Living area away from the noisy area given over to the children. The two wings are accordingly placed at right angles to one another with a connecting hall providing a "Noise trap" between the two, but at the same time making use of a glass wall in the Living room to give some supervision of the area in which the children play. The Living Area consists of living and dining spaces divided only by a free-standing fitting. This is most ingeniously placed both in relation to the entrance hall and to the living room. Viewed from the hall, glazing of living room and hall is continuous, the fitting being so placed as to incorporate the volume of the living room into the smaller volume of the hall. The bedrooms are all grouped in the children's wing, the main bedrooms and bath being placed on either side of an introductory passage. This leads into the large playroom, running transversely through the block, and with the children's bedrooms and their bathroom designed as spaces opening off it.

ABOVE: The living room; effects achieved by contrasting textures.
BELOW: From north: living room window with view of play area.



The playroom has large doors opening to the garden at either end. this free connection with the exterior being emphasized by paving its floor with stone slabs theated. like the remainder of the house. by radiant coils embedded in the floori. The openness of this area is contrasted with a deliberate sense of seclusion in the bedrooms. Here. as in the kitchen area. windows are used which are only two feet in depth and with their cills 3 ft. 6 ins. from the ground. By carrying these openings. as a general principle. from wall to wall. a panoramic view of the garden is still maintained. This arrangement also serves to emphasize the nature of the interior design. many of whose effects are derived from a calculated interply of surfaces of different textures. These surfaces are further defined by the artificial lighting which consists of fluorescent tubes placed behind baffles which are open at top and bottom. thus allowing a diffusion of light over a large wall surface.

At the same time considerable emphasis is laid. particularly in the Living area of the house. on the wall as a transparent screen introducing the exterior landscape. It is significant here that the garden layout as well as the whole of the interior furnishing has been carried out by the architect. thus arriving at a unity which was hardly envisaged by the original Bauhaus programme but has become obviously more desirable as its ideas. and particularly the use of glass to spatial effect. have been developed during the last twenty-five years. The restrained nature of the garden planting makes an interesting contrast with the pictorial exuberance of Burle Marx. Here the emphasis is on the flat sward as providing a well-defined plane on which the house can stand. Flowers are hardly used at all. colour being provided by flowering shrubs. Here is once more the architects' garden as it was in the days of William Kent. but with most of the qualities imitated from The Painters ruled out. Although inevitably "picturesque" in quality. less attention is paid to "foreground. background and middle distance" than to a continuous delimitation of space. Particularly successful is the use of low stone walls (a reminder of the "fence" that Kent leaped when he found that "all nature was a garden"?) to suggest an intermediate form of enclosure between house and garden. This feature has been exploited to considerable effect in the Guest Wing. Here a low stone wall runs. in the interior. continuously under the window-wall. providing at the same time a sill and a sitting ledge. This feature is then. as it were. refracted through the glass area at right angles and carried out to embrace an area of lawn. with a distant "belt" of trees completing the enclosure.

This continuity between interior and exterior is worth a closer study in its effect on the design of the outside walls. These have developed a long way from the simple glass screens used by the architect. for example. in his exhibition house in England; beyond even the sun-baffle technique of the Rio Airport. A section through the living room shows the external envelope to be divided horizontally into three parts. The centre. transparent. section is formed of pre-fabricated double glazing designed primarily to solve the problem of insulation. The top section is again formed of a double layer of glass. but this time translucent. and protected against sky-glare by canted wood louvres. The bottom section is also translucent. but of triple glazing calculated to withstand the rough treatment commonly given to the lower parts of walls. The result provides a control of light to obvious formal effect. It also suggests a calculated extension of the interior volume into the composed landscape without any of that loss of privacy or seclusion sometimes experienced by people who live in glass houses. The juxtaposition of clear and translucent glass is an important discovery. just as was that of clear and mirror glass in an earlier interior. The clear glass frames a finite prospect. while the whole picture is in turn framed by the translucent screen suggesting. as it does. an infinity of space.

The plywood furniture has also developed in a new direction since Breuer's conscientious experiments with the material carried out for "Isokon" in England. A new technique is established of using very thick plywood which is cut parallel with the laminations. Admirable results appear to have been obtained in the case of the tall chairs and small tables. but in the case of the settees and larger tables. these are probably more valuable in indicating a possible line of development for the material than as examples of perfected design.

BUREAUCRACY ± GENIUS

The "World of Architecture". it may be objected. is today a mundane affair of minimum housing standards and rationed materials. In such circumstances azuleijos and triple glazing. it can be argued with some justification. are materials suited only to the building of contemporary Ivory Towers. Such buildings as those described above nevertheless must continue to set the pace for a still-tentative contemporary idiom. the truth probably being that there are. and in fact always have been. two parallel developments of architecture: the adventures into new "styles" and new spatial expressions and that

larger body of building, good or bad according to circumstance and opportunity, which must of necessity lag behind the products of individual "genius". Accepting this distinction, Henry-Russell Hitchcock, in an article in the January "Architectural Review" headed, "The Architecture of Bureaucracy and the Architecture of Genius" makes an interesting survey of the position of architecture to-day. Accepting the rather questionable fact that a Contemporary way of building is now established as the only way of building, he goes on to elaborate his distinction between the functions of "Bureaucracy" and those of "Genius" . . . "The major problem of architecture in the middle of the twentieth century," he writes, "is presumably going to be a problem not of up-to-dateness but of quality. But if the quality of post-war buildings is to be properly considered it is most important that the basic conditions of the times as they control architecture should be appreciated. We must not expect each individual type of pre-fabricated dwelling to have the striking originality and the subtle qualities of abstract expression of the first modern serial dwellings designed by Le Corbusier and others twenty-five years ago, nor each factory office block to have the richness of form, the elegance of materials and the elaborate interplay of volume of Wright's Johnson Wax Administration Building. The major division of architecture into categories is, I believe, going to be between what may be called the architecture of bureaucracy and the architecture of genius, and of the latter we may presume that very little will be built for some years to come. By the architecture of bureaucracy I do not mean merely such building as is designed by civil servants, nor even the building which is controlled by the regulations of one or more ministries, although in England there will be little building which is not controlled by one or the other of these classes. By bureaucratic building I mean all building that is the product of large-scale architectural organizations, from which personal expression is absent. Indeed the type of bureaucratic architecture *par excellence* is not that of government ministries, which have as a matter of fact been on the whole up to now rather feebly organized, but the production of such an architectural firm as Albert Kahn, Inc., in Detroit, where the anonymity is the more obvious now that Albert Kahn, the founder, is dead. The strength of a firm such as Kahn, or for that matter of a state architectural bureau, depends not on the architectural genius of one man (there is sufficient evidence that Kahn was a mediocre architect considered as an individual), but in the organizational genius which can establish a fool-proof system of rapid and complete plan production. The different sets of plans for construction, for wiring, for heating, etc., and even for design, ought to come down the line and meet on the site with as perfect mutual co-ordination as machine parts come from the various sections of a factory to be joined first into sub-assemblies and then into the finished product on the final assembly line. No one mind can master all the problems involved and the only assurance that no amenities will be forgotten lies in the intelligence with which the system of plan production is set up and the skill with which the key billets in the system are filled . . ."

Professor Hitchcock goes on to speculate on the appropriate fields for the work of bureaucratic organizations and for architects of "proved individuality". To confuse the two is to produce such monsters of "monumentality" as the products of Nazi town-planning, but in one particular direction, he maintains, the architect of "genius"* has a contribution to make to the bureaucratic group, and that is in evolving imaginative forms of layout for large schemes. The Oak Ridge city of 75,000 built, in a matter of months, to house the workers and plant for the atomic bomb is quoted as a case in point. Many large organizations contributed to the scheme, one producing the factories, another the housing, sectional houses also being provided by the Tenesse Valley Authority, and yet another designing that complex of shopping centres, community buildings, etc., which are now accepted as indispensible by progressive city planners. The whole scheme nevertheless suffers from the lack of any overall plan such as could have been provided by an architect of the calibre of Frank Lloyd Wright. Such an architect, the success or failure of whose designs depends upon the rightness of an individual Idea the failure of which, should it contain a flaw, no outside power can rectify, is plainly unsuited to control the destinies of large community projects. The field for his abilities lies rather in the design of "Monumental" buildings (theatres, churches, libraries, etc.), scope for which must be provided in all bureaucratically conceived city plans. There is nothing new in this Division of Labour. Bureaucratically designed terraces of houses and Soane art galleries existed, as Professor Hitchcock points out, side by side in the past, and no one would think of applying the same canons of criticism to the two. What he pleads for is a re-assessment of the work hitherto considered appropriate for bureaucratic groups and for individual architects. Housing, factories and community centres, one concludes, are among the appropriate commissions for the former. On the other hand city halls, libraries and museums, buildings which have hitherto generally been considered as appropriate commissions for bureaucratic bodies, should be handed over to architects of established individuality. The plea is convincingly stated and it raises many points beyond those actually discussed in the article, while the actual questions which it does consider are vital ones if architects are to contribute effectively to the large and complex building programmes which are everywhere being drawn up to-day.

* ". . . I use the word 'genius' merely to define the sort of architect who functions as a creative individual rather than as an anonymous member of a team." — Professor Hitchcock.

NOTES AND NEWS

THE SOUTH AFRICAN STANDARDS COUNCIL

The First Annual Report of the South African Standards Council which was tabled in the House recently covers the activities of the Standards Council and of the South African Bureau of Standards during the period 1st September, 1945, to 31st December, 1946.

The Report reveals that during the first sixteen months of its existence the Standards Council has pushed ahead energetically with its plans for placing standardization on a sound footing in the Union, and has completed a great deal of the basic and development work.

On 1st January, 1946, the South African Bureau of Standards was established by the Council in a section of the Mint Buildings, Pretoria. The Director, Mr. James Ritchie, B.Sc., F.R.I.C., was appointed and the staff now consists of thirteen technologists and an administrative staff of ten, while further appointments are being proceeded with.

Thus far the Bureau consists of the Divisions of Chemistry, Engineering, Physics, Publicity, Library, and Administration, while the establishment of an Inspection Division is under consideration.

The Chemistry Division is directed by the Principal Technical Officer who is assisted by four chemists, a metallurgist, an entomologist, and a textile technologist.

The principal Technical Officer of the Engineering Division controls the sections for electrical, mechanical and civil engineering as well as the metrology section, senior technical officers being in charge of each of these sections.

Some indication of the wide extent of the Council's activities is to be gained by a study of the specifications being compiled by the Bureau. These include specifications for alloys of various types, antiseptics and disinfectants, asphalts and bituminous products, containers and packing, DDT, door-locks, electric batteries, gelatine and glue, hospital equipment, polishes, marks for precious metals, fire-bricks for furnace linings, re-refined motor oils, softwood timber, timber preservatives, stationery, steels and wool; also building codes, safety codes for electric appliances, and a test code for electricity meters.

The Report makes clear that the Council's object is to work in the interests of both the South African consumer and the South African manufacturer with a view to ensuring a fair deal to the former, while protecting the latter against unfair and dishonest competition whether from within the Union or from outside its borders.

Emphasis is laid on the fact that specifications are compiled in close collaboration with manufacturers and consumers, and committees entrusted with the compilation are composed of representatives of the industries concerned, consumer organisations, commerce, government departments, The Council for Scientific and Industrial Research, the Standards Institution and other bodies. Appreciation is expressed of the support and collaboration received from these organizations.

The manufacturer who manufactures according to the Council's specifications may apply for permission to use the Council's registered mark on his goods, this mark serving as a guarantee of quality to the purchaser. The hope is expressed that the Council's Mark will in time become so familiar that consumers will in preference buy an article which bears the Mark. In this way the Council hopes to raise the quality of goods produced in South Africa, and to remove the, often unjustified, prejudice against South African goods which still prevails in certain quarters.

The Council is also empowered to introduce compulsory specifications, and where this is done no person will be allowed to sell the particular article unless it complies with the specification. The present intention, however, is to make use of these powers of compulsion only in cases where public health or safety are involved.

As the Union is still dependent on overseas manufacturing countries for a large proportion of its requirements close contact is maintained with overseas standardizing bodies, both within the British Commonwealth and outside it, in order that a South African specification shall not prevent overseas manufacturers of quality goods from selling their products in the Union.

During 1946 the Director of the Bureau attended the Commonwealth and International Conferences on Standards held in London, and spent six months visiting standardization organisations in various countries. He succeeded in establishing liaison with standardizing bodies in America, Great Britain, Eire, Australia, Canada, India, New Zealand, Palestine, France, the Netherlands, and Sweden. It is intended to extend this liaison to the standardizing organisations of other countries, particularly those of Europe, as soon as conditions make this possible.

The South African Standards Act was discussed with the Directors and senior officials of each of the bodies visited and these gentlemen were unanimously of the opinion that, if the South African Bureau of Standards was allowed to develop on the lines indicated by the Act, South Africa would probably have one of the best standards organisations in the world.

The Library of the Bureau receives official standard specifications, and journals relating to standardization, from all parts of the world and, in order that the technical staff may be kept abreast with the latest developments in scientific and industrial test methods, extensive indexing and abstracting from these publications is undertaken by the library staff. This service is also available to Government departments, industry and the general public.

Testing is in full progress in the chemistry and metrology divisions but progress in the physics and engineering divisions has been held up by delays in delivery of the necessary equipment. Meanwhile use is being made of testing facilities kindly placed at the Council's disposal by other institutions.

The Standards Council is composed of the following:

Chairman: Dr. F. J. de Villiers (Industrial Adviser, Department of Commerce and Industries).

Members: Dr. V. Bosman (Steel Sales of South Africa (Pty.) Ltd.).

Dr. F. E. Kanthack (Consulting Engineer).

Dr. B. J. F. Schonland (President, Council for Scientific and Industrial Research).

Mr. C. K. Wilson (Stewarts & Lloyds of South Africa, Limited).

Mr. S. J. de Swardt (Chief of the Division of Economics and Markets, Department of Agriculture).

Dr. M. M. Loubser (Chief Mechanical Engineer, South African Railways).

S.A. COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

TERMITE PROOFING OF BUILDINGS

Under the aegis of the C.S.I.R., a committee composed of various interested research bodies has been set up to deal with the general question of termite proofing in South Africa. The work of this committee embraces the examination of the entomological aspects, the processes of preservation of timber, the details of construction methods and the necessity for a further programme of research work in connection with the effects of termite action on structures. This committee is at present working on this programme and it is hoped that the preliminary report will also form a basis of a recommended Code of Practice for temite proofing in this country.

The aid of members of the Institute is sought in regard to the section dealing with building construction methods in the preparation of a schedule of recommended existing practice. A folio of typical floor construction details prepared by the Building Research Institute is available for reference in the T.P.I. offices and members are urged to examine these drawings and forward their recommendations for efficient termite proofing together with reasons and any remarks of a general nature they may wish to make to: The Acting Director, Material Building Research Institute, C.S.I.R., Private Bag 189, Pretoria.

EFFLORESENCE IN BRICKWORK

The Building Research Institute is collecting information on the above phenomenon and seeks the assistance of members in locating cases of damage to brickwork caused by efflorescent salts. For guidance of members it is pointed out that there are, in general, two types of efflorescence, firstly, a visible white efflorescence which, while unsightly, is not very destructive, and secondly, a similar-looking phenomenon which causes disintegration of the brick due to the disruptive effect of crystalization of salts.

Members are asked to report such instances, particularly the latter, by letter or telephone to the Acting Director at the address above (Pretoria 3-1261) marking communications, "Attention, Mr. A. W. Fletcher."

S.A. BUREAU OF STANDARDS

At its recent meetings the Standard Council has appointed a committee to prepare a Specification for Lime Plasters.

PROFESSIONAL ADVERTISEMENTS

It is notified for general information that the Editors will accept advertisements of a professional nature dealing with situations and partnerships wanted and offered, and matters of a similar nature at a tariff of 10/- per inch, amounting approximately to six lines or sixty words.