



SOUTH AFRICAN ARCHITECTURAL RECORD

JULY 1952

7

the future will endorse today's preference for

**WILLIAMS & WILLIAMS
(S.A.) LTD.**

JOHANNESBURG

Tel. Add.: "Stelwindow"
P.O. Box 5990

FACTORY:
Cr. of Bunsen and Kelvin
Streets, Industria
Phones 35-1156/7

TOWN OFFICE:
69/70, Annan House
Commissioner Street
Phone 33-9242

**WILLIAMS & WILLIAMS
RELiance (S.A.) LTD.
METAL WINDOWS**

SOUTH AFRICAN ARCHITECTURAL RECORD

JOURNAL OF THE INSTITUTE OF SOUTH AFRICAN ARCHITECTS; THE CAPE, NATAL, ORANGE FREE STATE AND TRANSVAAL
PROVINCIAL INSTITUTES AND THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

CONTENTS FOR JULY 1952

GROOT DRAKENSTEIN. Luxury Bachelor Apartments in Johannesburg. Architects: H. H. le Roith and Partners	166
MORKEL & VILJOENS GARAGES. A remodelled Garage in the Cape Province. Architects: Chapman and Cohen	170
RESIDENCE GERSHATER. Architects: H. H. le Roith and Partners	173
EARLY VOORTREKKER HOUSES IN THE SOUTHERN FREE STATE, by James Walton	176
ADDRESS TO THE CENTRAL COUNCIL, by (Retiring) President-in-Chief C. Erik Todd Esq., O.B.E., M.C., A.R.I.B.A., M.I.A.	180
SUMMARY OF CENTRAL COUNCIL ACTIVITIES, COVERING SESSION 1951/52. Paper by the Registrar	181
TRADE NOTES & NEWS	183
BOOK REVIEWS	184
OBITUARY	185
NOTES & NEWS	185

E D I T O R VOLUME 37

W. DUNCAN HOWIE

ASSISTANT EDITORS

UGO TOMASELLI

GILBERT HERBERT

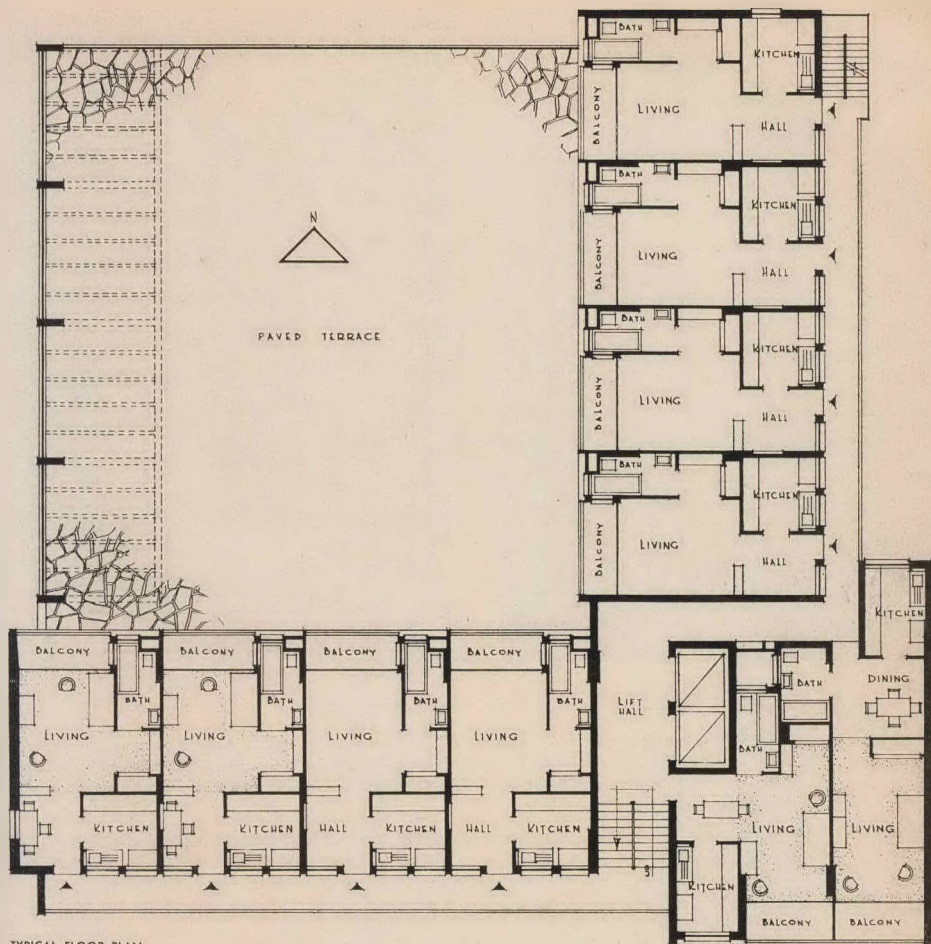
7

The Editor will be glad to consider any MSS., photographs or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs or sketches, and publication in the Journal can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. The Institute does not hold itself responsible for the opinions expressed by contributors. Annual subscription £1 10s. direct to the Secretary, 612, KELVIN HOUSE, 75, MARSHALL STREET, JOHANNESBURG. 'PHONE 34-2921.

BUSINESS MANAGEMENT: G. J. McHARRY (PTY.), LTD., 43, BECKETT'S BUILDINGS, JOHANNESBURG, P.O. BOX 1409. 'PHONE 33-7505



G R O O T D R A K E N S T E I N

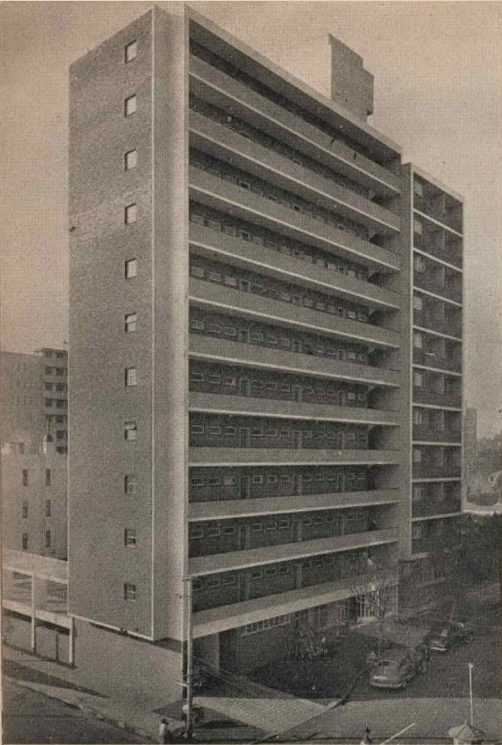


TYPICAL FLOOR PLAN

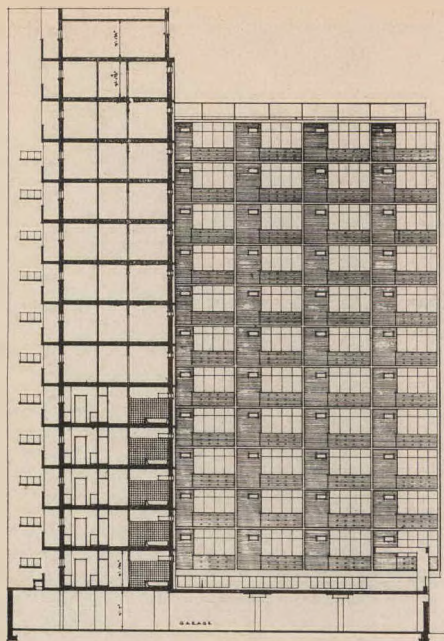
Groot Drakenstein has been built on a 100ft. x 100ft. south and west facing corner stand on Clarendon Circle. The block of luxury bachelor flats has been so designed that practically all flats face north and west, enjoying maximum sunshine and a superlative view, especially to the west. Furthermore by adopting the inner facing L shaped plan a large proportion of the flats have been kept back a fair distance from the boundary, an important consideration as there is a great deal of traffic noise on the circle.

By staggering the floor levels of the two blocks a considerable saving in corridor area has been effected

ARCHITECTS: H. H. LE ROITH AND PARTNERS



View from the South-west.



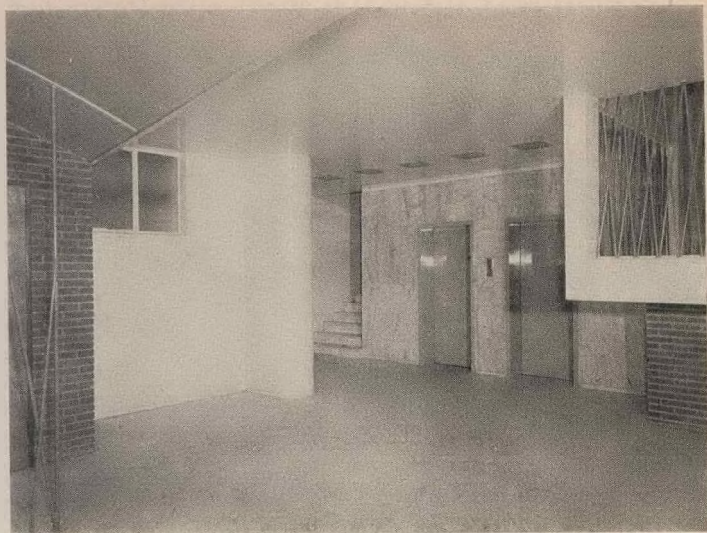
SECTIONAL ELEVATION.

The flats are designed on the cellular system using a 16ft. 8in. module which is clearly expressed on the elevations. Placing the bathrooms on the main elevation constitutes an unusual innovation and has been fully justified in practice, despite the increased cost of the plumbing installation, by the generous entrance-dining space thus created.

The living space has a dressing recess along one side which can be curtained off and which is directly connected with the bathrooms which have a window facing onto the balcony for privacy, and a small window on the external wall for cross ventilation. The bathrooms help to separate the balconies and act as effective visual and sound insulation. Furthermore one of the chief disadvantages of the inward facing L shaped plan for flats—namely that the two wings overlook each other—is mitigated by the interjecting bathroom units as also by the staggering of the floors. Practically the whole ground floor has been used for garaging, and a concrete loggia over the garage along the west boundary helps to shield the flats on the lower floors from the street.

Reinforced concrete construction has been used throughout. The flats are effectively insulated from one another by 11in. hollow block floors and 7in. brick cavity wall partitions.

Externally the finish is painted plaster for the cellular structure with red and plumb coloured rustic bricks. While the external walls facing onto the access gallery are treated in smooth faced red bricks with parapet walls in beige-mustard tyrolean. The vivid eau-de-nile colour of the junction between the two wings was chosen and insisted on by the clients contrary to the architect's wishes.



Interior view of entrance hall looking towards lifts.

Photography: B.R.S.

Exterior view from South-east, showing access galleries and South facing flats.



CONTRACTORS: HOFMAN BROS. SUB-CONTRACTORS: Painting: Herbert Evans & Co. Ltd.,
Electrical Contractors: S. M. Missing (Pty.) Ltd.; Plumbers: Austin Reddy; Wood Block Flooring:
Rhodesian Timbers; Lifts: Express Lifts; Reinforced Engineer: A. F. Beguin; Steel Supply:
F. Maller; Bricks: Primrose Brick Works; Sanitary Ware: Sand & Co.; Sinks: Premier Concrete;
Doors: Bruynzeel; Windows: S.A. Metal.



REMODELLED GARAGE

Programme : The programme consisted of the reconstruction of an existing garage and the addition of workshop and cloak-room accommodation, all to the requirements of the Factory Inspector's Department, as well as the provision for a night attendant who was to have no direct link with the inside of the garage. New administrative offices and a showroom were also required. It was necessary to move the petrol pumps back from the pavement so as to comply with the local council's requirements and the designers were asked to consider night advertising.

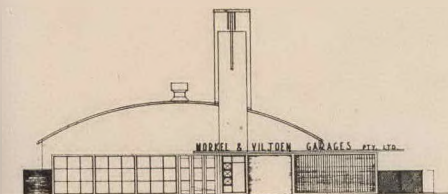
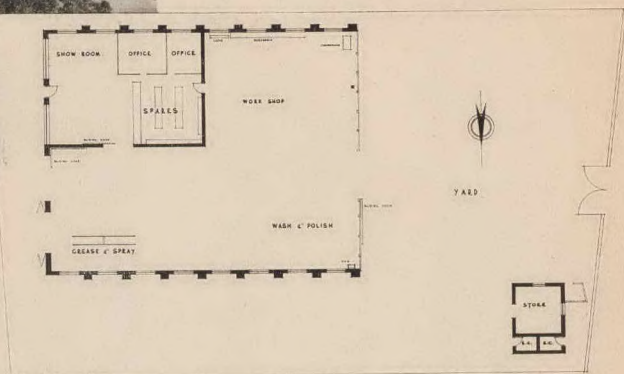
ARCHITECTS : CHAPMAN AND COHEN

The Site : The existing garage faced onto the main road, which is the direct link from the National Road serving the seaside resort of Somerset Strand. At the rear of the property is a narrow street which serves as the main access to the garage workshop.

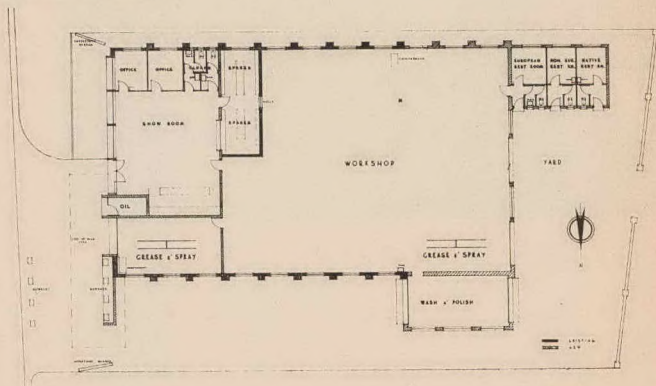
Solution : It was decided, where possible, to retain all existing forms such as the main roof and external walls, the grid of window spacing and the front parapet wall of the garage. In the case of the latter a portion of the top was removed and the existing roof extended. This roof likewise



Plan and photograph of old garage before reconstruction.



Plan and Elevation of remodelled garage, showing extensions and reuse of existing structural piers.





Interior view of showroom looking towards spare sales department.



Exterior view of remodelled scheme.

was extended over the new portion of the workshop. Owing to low water pressure and the necessity for providing height for the oil drums, a tower was incorporated in which was embodied advertising facilities. This tower is visible from a considerable distance from either side, namely, from the town or the National Road.

The pumps were placed alongside the main building,

which allowed for a driveway over the owner's property. This arrangement complies with the local authority's requirements. The night attendant's office was placed between the new showroom and the petrol pumps. Owing to the high wind velocity, it was decided to break up the display windows to the showroom into small sections, in an effort to reduce any possible damage by wind.



RESIDENCE GERSHATER

Programme : A medium sized suburban house of semi-rustic character with a large outdoor living area.

Site : A secluded well wooded, north, west and south-facing corner stand in the old established suburb of Parktown. On all but the east side, neighbouring residences are set well back from the boundaries.

Solution : A north aspect considered desirable for all main rooms, has to a large extent determined the layout of the plan. The basic living and sleeping areas have been clearly defined and stressed. The living room has a raised ceiling and the large north-facing window-wall is protected by a pergola. The space for outdoor living and dining is provided

ARCHITECTS : H. H. LE ROITH AND PARTNERS

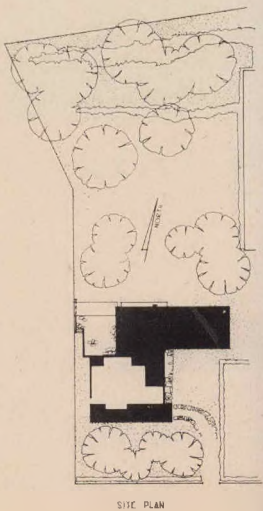
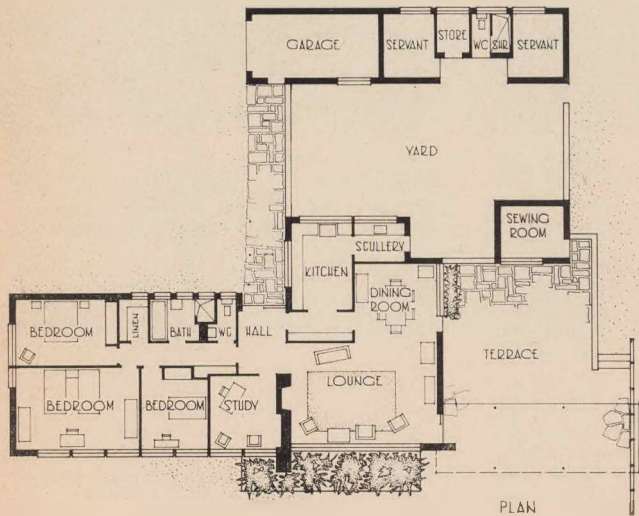
by the large terrace on the west, screened from the cold south winds by the servants wing and its position does not cut off sunshine from the north-facing living-room window as is so often the case in South Africa.

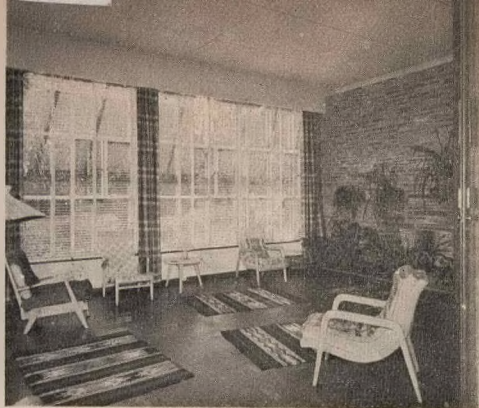
The terrace is clearly defined in relation to the garden and partially screened from Rockridge Road, by a concrete grille, which, together with the elevated position of the terrace in relation to the road, provides the necessary degree of privacy.

External finishes are such as to create a semi-rustic atmosphere. Walls generally are in stockbrick while accents, such as the large chimney, are provided in slasto. The Roof is finished in rustic Broseley tiles laid to a low pitch on boarding.



View from North-west looking towards terrace and lounge window.





1

1. Interior view of living room.

2. View of pergola approach to entrance hall on South.

3. View of terrace showing slasto screen wall and concrete grille.

2



3



EARLY VOORTREKKER HOUSES IN THE SOUTHERN FREE STATE

By JAMES WALTON

EDUCATION OFFICE, MAFETING, BASUTOLAND

Of all the historic events in South Africa none has captured the popular imagination to the same extent as the Great Trek, for it marked the pioneer development of a great part of the country under undoubtedly difficult conditions. Nevertheless those who crossed the Orange River in 1836 were by no means the first. Even as early as 1819 Stephanus Kruger, Casper Kruger and Gert Petrus Nicolaas Coetsee visited the Koesberg area in search of elands and hippopotami and by the following year farmers were already beginning to settle around the slopes of the picturesque, well-watered mountains between the Orange and Caledon rivers.

In 1839 when James Backhouse travelled through the country he met many of the early settlers. At one place on the road to Beersheba he encountered a "Boer who was ploughing. These people," he observed, "often sojourn for a time in remote parts of this country, and plough, or feed their cattle. We often passed one of their encampments, consisting of a tent and four wagons, and another of six wagons, belonging to an emigrating Boer. At one of the places where we rested, a Welshman, who had married a Bechuana woman, was living in a poor, roof-like hut of reeds, near a spring that issued from some sandstone rocks, in a hollow" ([1]. Huts, known as *kapstelhuis*, were used by the *trekboeren* from very early times and these consisted of a series of couples reaching to the ground and thatched with reeds and grass. Such, apparently, was the home of this Welshman.

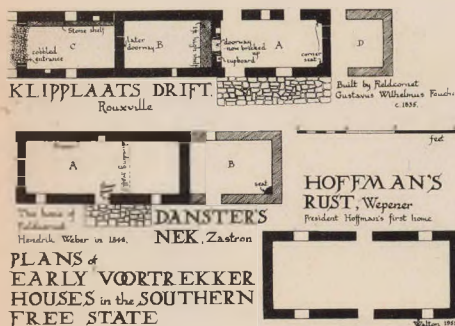


Fig. 11.

Elsewhere north of the Orange the prevailing type of house was the *hardbieshuis*, a rectangular dwelling consisting of a series of arched couples which allowed of almost vertical,

reed-covered walls (2). It had a central door with occasionally two small window openings and a roof vent to allow the smoke to escape. Just after leaving Thaba Nchu Backhouse came across a young Dutch couple, William Christian and Susanna Bauer, who were "engaged in trading with the Boors, sojourning on the Sand and Modder Rivers," and they received him kindly in a "hartebeest" hut.

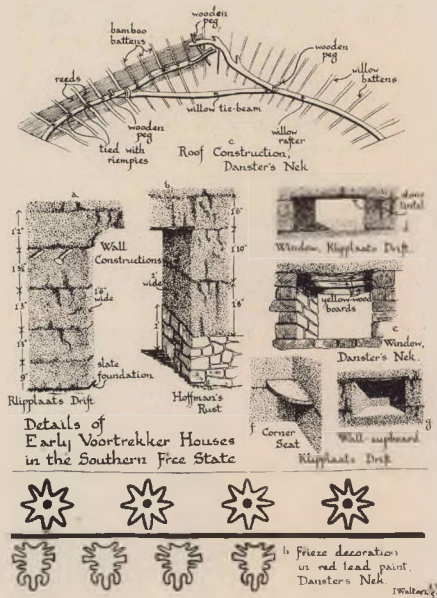


Fig. (2).

The following evening Backhouse relates that "just as it was becoming dark, we thought we saw something in the form of a White-man's dwelling, not far from the road, and made for it. It proved to be the hartebeest hut of a Boor . . . The names of our host and hostess were Solomon and Adriana Katharina Norgi; they were the parents of nine children, five of whom were married and living at a distance. Their house presented no attractions in regard to cleanliness; but it was the abode of hospitality, and in some measure, a shelter from

the cold. It was built of sticks and reeds, and plastered with clay and cow-dung. The door reached to within a foot of the top of the aperture that it partially closed. The furniture consisted of a low bedstead; two wagon-chests that served as a table; two folding-stools, a chair, a komfoor, for the good woman, who was without shoes, to set her feet upon, a few iron cooking-pots, and one with a hole in its side, that stood in the middle of the floor, and contained a little fire of wood; also a kettle, a gun, a few smaller items, and a parcel of skins, on which the children slept" (3).



Fig. (3). West wall of original house, Klipplaats Drift, Rouxville.

The *hardbiershuis* continued in use as a dwelling house for almost a century in many parts of the Orange Free State but generally the settlers began to build more substantial structures of mud and stone once they had established themselves on a suitable site with a plentiful water supply. There was, however, almost continual border warfare between the Boer settlers and the neighbouring Sotho tribes and many of the earlier dwellings were either burnt or demolished. Out of the fifty farms sited between the Orange and Caledon Rivers sixteen of the owners had been ejected by the Sotho between 1848 and more were to follow during the years from 1855 to 1858.

At Fauriesfontein, the home of Jan Hendrik de Winnaar from 1838, the dwelling house was burnt down, another building, 30 feet long, and three water mills were demolished and the orchard and vineyard, reputed to be the largest and finest in the Free State, were almost wholly destroyed. The total damage was estimated at £450 sterling. At Knecht's Kloof a brick house valued at £300 was demolished and many other houses were similarly damaged.

As a result of these depredations few of the earliest Voortrekker houses now remain but the surviving shells at Danster's Nek near Zastron, Klipplaats Drift between Rouxville and Smithfield, and Hoffman's Rust near Jammersdrift are sufficient to afford us some picture of these early dwellings. In each case later houses were erected on neighbouring sites so that the original dwellings have remained unchanged.

When Gustavus Wilhelmus Fouche settled at Klipplaats Drift in 1835 as a young man of 28 he built himself a two-roomed rectangular dwelling (Figs. 1 and 3) with mud walls resting on stone slate footings. The mud for the walls was mixed with cow-dung and trampled under foot for several hours. A layer, 18 inches wide and about 15 inches deep, was built on the slate foundation and then allowed to dry and harden so that it might carry the weight of the second layer. In this way the wall slowly reached the required height (Figs. 4 and 5).



Fig. (4). Looking into Room A' from Room D', Klipplaats Drift, Rouxville.

Fig. (5). Detail of wall construction, Klipplaats Drift, Rouxville.



At Danster's Nek (Fig. 6) the walls are of undressed sandstone set in mud and smeared both inside and out with a mixture of clay and cow-dung to a thickness of about three inches. Above the level of the lintels the stone wall is surmounted by a layer of clay. Hoffman's Rust has mud walls, 2 feet thick, built up in layers averaging about 20 inches in depth, which stand on a 2-foot high "grundwall" of sandstone set in clay (Fig. 7). The walls are plastered inside and out with a lime plaster consisting of one part lime and three parts sand. The lime and sand were mixed with water and thoroughly turned with a spade daily until the eighth day when the plaster was ready for use. Around the top of the wall inside some families painted a frieze and at Danster's Nek remnants of such a frieze, executed in red lead paint, still exist.



Fig. (6). Original House, Danster's Nek, Zastron.



Fig. (7). President Hoffman's First House, Hoffmans Rust, Wepener.

The roofs were generally gabled and thatched but only at Danster's Nek has the original roof framework been preserved. It consists of a series of undressed couples made from willow branches, pegged together with wooden pegs at the apex. A tie-beam, probably more correctly defined as a low collar-beam, of untrimmed willow, joins each pair of rafters to which its ends are pegged and tied with *riempies*. This use of willow indicates that when the house was built the nearby poplar grove, affording a plentiful supply of straight rafters,

was not in existence. Across the couples are closely-spaced battens, tied to the couples with *riempies*. The lower ones are of willow, the upper ones of bamboo which is now no longer found anywhere in the vicinity. To these battens the thatch of reeds and grass was sewn by means of grass rope or *riempies*. Flat roofs covered with brack soil, which served admirably to keep out the rain, were employed on out-buildings and on some houses too.

Doorways were provided by simply leaving a gap in the wall, usually about 3 feet wide, until the required height was reached. Over the gap, and resting at the ends on the last layer of mud, was placed a lintel; at Klipplaats Drift the lintels consisted of flagstone slabs but at Danster's Nek and Hoffman's Rust three yellow-wood boards were used for this purpose and these have sagged considerably due to the weight of the overlying clay course. Where a new doorway was broken through the wall a lintel could not easily be fitted and so the doorway had an arched head (Fig. 4). Little remains to indicate the nature of the door itself. At Danster's Nek a hanging post still stands and at Klipplaats Drift two holes, one at each side of the lintel, probably housed wooden pegs to which a simple door frame was fastened or maybe they accommodated a wooden bracket to support a harr-hung door.

Window openings were usually about 2 feet wide and the height of one or two mud courses. They had lintels similar to those of the doorways but there is nothing to suggest that they were ever fitted with window frames or that they were glazed. Probably a reed screen or a piece of sackcloth served to cover the openings at night. Tiny cupboard doors were built in the walls at Danster's Nek and Klipplaats Drift (Figs. 4 and 6). At Klipplaats Drift rows of ox bones and branches were embedded in the wall so that they projected about a foot inside the room to support a shelf and clothing and guns were hung from similar pegs. Low corner seats were also provided for the children: at Klipplaats Drift these consisted of stone slabs embedded in the wall, now cut away, but at Danster's Nek the seat was built up of stones and smeared with clay.

In plan all these houses were simple rectangles. Fieldcornet Fouché's house at Klipplaats Drift (Fig. 3) consisted of a living-room, A, 22 feet long by 13 feet 9 inches wide, and a bedroom, B, of the same size (Fig. 1). It faced the east in order to take full advantage of the morning sun and had opposite doors into the living-room. The entrance in front of the living-room was paved with flagstones. A doorway afforded access from the living-room to the bedroom which was illuminated by a single small window. At the bedroom end of the house was a mud-walled building, C, which appears to have served either as a wagon-shed or cattle stalls. At a later date the doorway between the living-room and bedroom was bricked up with burnt bricks, a new bedroom, D, was built of undressed stone and an arched doorway (Fig. 4) was provided. The

outbuildings consisted mainly of a waggon-shed and a number of rooms for servants and farm labourers (Fig. 5).

Danster's Nek (Fig. 6), situated in a secluded kloof between Zastron and Rduxville, was the home of Fieldcornet Hendrik Weber in 1848 before passing into the hands of Johannes Botha, under whom it figured prominently in the boundary disputes of the following decade. It also was a two-roomed dwelling, measuring 35 feet 6 inches by 15 feet and fronted by a paved entrance. Later a *buite kamer* with a flat *brak* roof was added and a doorway made from the first dwelling into the addition which also had an outside door. Hoffman's Rust (Fig. 7), the home of Josias Philippus Hoffman when he became first President of the Free State in 1854, was also a simple rectangular structure, 40 feet by 18 feet, but it is now difficult to determine anything of its plan from the existing ruin. None of these early houses had a fireplace and cooking was either done outside in the open or in a temporary shelter which has long since disappeared.

Homes such as those described replaced the primitive *kapsteilhuise* en *hardbieshuise* of the early days of settlement north of the Orange but no more pretentious dwellings were erected during the unsettled period before 1868. After the annexation of Basutoland the Free State farmers abandoned their early dwellings which they had built themselves and engaged travelling masons and builders to construct their new homes. Most of these have been altered beyond recognition but Vincennes, on the road between Zastron and Mohale's Hoek, remains as it was built by Commandant Robert Finlay, chief gunner of the Boer forces under Louw Wepener which attacked the Solho in 1865 (Figs. 8 and 9).

Fig. (8). Vincennes, Zastron.



Fig. (9). Vincennes, Zastron.

Finlay's first home at Vincennes, which still stands, was very similar to the early house at Danster's Nek, but he soon abandoned this in favour of the present three-roomed dwelling, built of large blocks of stone set vertically instead of with the bedding. Although more substantially built it afforded little more accommodation than Klipplaats Drift. It had, however, a yellow-wood board ceiling, stout yellow-wood doors and glazed yellow-wood window frames. In front is a high, stone-paved stoep formerly shaded by vines climbing over a pergola. A separate rectangular stone kitchen was built at the rear which was later connected to the front block by a covered passage, so giving a U-plan.

The usual house of the 1860's was a three-roomed dwelling, consisting of a *voarhuis* flanked by a bedroom on each side, with a projecting kitchen at the back. Eventually an *achterhuis* was built behind the *voarhuis*, which often became little more than an entrance hall, and a third bedroom was built at the back. Such was the development of the *Vaartrekker* house in the southern Free State during the first half century of settlement in the lands between the Orange and Caledon Rivers.

REFERENCES

- [1] Backhouse, James: *A Narrative of a Visit to The Mauritius and South Africa*, 1844, p. 356.
- [2] For a more detailed account of *Kapsteilhuise* and *Hardbieshuise* see: Walton, James: "Homes of the Early South African Stock Farmers," in *African Notes and News*, Vol. VIII, No. 2, 1951, pp. 51-4.
- [3] Backhouse, James: *op. cit.*, pp. 419-20.

ADDRESS TO CENTRAL COUNCIL BY (RETIRING) PRESIDENT-IN-CHIEF

C. ERICK TODD Esq., O.B.E., M.C., A.R.I.B.A., M.I.A.

It is with profound trepidation that I commence this Address: firstly, because of my dislike of speaking in public, even to a small gathering; and secondly, because I have decided to break away from the generally accepted form of Address in which a review is given of matters which have arisen or conditions which have become apparent during the year in which office is held.

Instead, I have thought fit to look back over the past few years seeking the main theme in the addresses of my predecessors in office; and from these, together with my own strong convictions, I have attempted to analyse the present position of the Building Industry as a whole.

In 1948 Mr. Hanson in his address said: "It is apparent that South Africa is now entering an era of great development," and also, "... The new phase has meant, and means, a far greater contribution from members of the profession, both individually and collectively, to the community as a whole."

Mr. Tomlin said, in 1950: "Perhaps one of the factors in the Building Industry in this country which requires our most serious attention is that of prevailing building costs." He also said, "The Institute's function is to unearth those difficulties within the Building Industry which our experience has taught us do exist, and, where possible, suggest remedies or avenues which may be explored with possible benefit." Also he went on: "... Our local industry does reveal a certain inefficiency on building contracts" and further, "... On the part of the Contractor, there is ample evidence of lack of organisation on the job which is a costly factor."

Last year Mr. Austin said, in relation to building costs, "We, as professional participants in, and advisors to, the Building Industry, have an important contribution to make."

Gentlemen, this theme arising from the addresses of three Past Presidents-in-Chief can only mean that there is ample justification for stating that building costs are at present relatively too high as a direct result of inefficiency within the industry as a whole. Of this I am also personally convinced. We must, however, ask ourselves why this inefficiency exists and why the Building Industry, unlike other industries, has failed to benefit from the Industrial Revolution. Methods have changed little over the years.

Personally, I think that the present generally accepted methods of design and documentation give rise directly to this inefficiency and with consequent unnecessary cost. That this is at least true in South Africa, I am convinced.

Although the principle of design and execution is quite common in certain sections of that complex thing, the building, I do not think we can leave it just at that.

I am of the opinion that this principle applied to steel reinforcing in buildings is already quite out of hand and I feel most strongly that the practice of covering the cost of the design, supply, bending and fixing of reinforcing steel by a provisional sum in building contracts should cease. The industry as a whole, in my view, should return to the system whereby reinforcing steel is measured in detail and included in the bill of quantities on which tenders are based. This obviously means design in the pre-taking-off period by a professional man, who should, in my opinion, have no connection whatsoever with the execution except in a supervisory capacity representing the interests of the building owner. The same principles, in my mind, apply to structural steel for buildings and to many of the present so-called forms of specialist work.

It may well be possible that in the course of time as and when very specialised forms of construction are developed, the Building Industry may have to accept the principle of design and execution for those particular very specialised forms of construction. Should this be the case, I consider that the design and execution should be supervised by an independent professional man, Architect or Engineer, representing the building owner's interests. Care would have to be taken that such an arrangement did not result in double payment for the same responsibilities.

Before the design and execution system for very specialised types of construction can properly be integrated into the Building Industry, I think it is essential that some clear-cut system of competitive tendering at the appropriate time will have to be developed in order to meet the surrounding difficulties. Such competitive tendering should take into account all facets and give clear-cut competition, firstly between the new specialised forms of construction, one with the other, and thereafter the new forms with the older conventional forms.

It is obvious that it is not in the interests of the building owner to pin himself in the early stages, without competitive tendering, to any particular form of construction, yet it is hardly possible to develop designs and documents to a stage where it is possible to obtain satisfactory competition without so doing. It is also quite obvious that it is not possible, without incurring extra cost to the building owner, to produce numerous alternative designs in order to secure competition. All the foregoing is a most difficult problem and possibly accounts for the general reluctance to use specialised construction methods.

This brings me to a much wider problem in the Building Industry — that is, the very great need for "completeness" both on the professional side (i.e. in documentation and supervision), and on the execution side (i.e. in the supply and execution of everything to produce the building as a whole).

In general, I think there is far too little co-ordination in the various documents at present required for the erection of a building. This is probably basically the fault of Architects, who are far too prone to call in a consultant and say, "Over to you, this is outside my sphere. I am not interested, as long as it works." I also feel that consultants are far too prone to withdraw into a watertight compartment, resenting any intrusion. I state, with conviction, that no project can be entirely successful and fully economic under these conditions.

The present ruling systems seem to be all wrong. Consultants should be "consultants." They should not be expected, nor should they undertake, to produce sets of documents complete in themselves in which separate unco-ordinated supervision, interpretation and administration is envisaged. They certainly cannot each be expected to integrate their particular sections of work into a building project.

The co-ordination of supervision and administration of the contract and the integration of all the specialist or consultative work into a desirable comprehensive set of documents for building is obviously the responsibility of the Architect, but he has, in my opinion, very little chance of satisfying this demand unless he is prepared to depart from the present generally accepted relationship between Consultant and Architect.

To my mind, the architect should set down his general requirements from which the consultant should in stages produce draft documents in such a form that they can be integrated into the comprehensive set of documents. For example, an electrical consultant should be given tentative electrical diagrams showing points and outlets required, position of main and distribution boards, and, if necessary, the main runs of tubing should be tentatively routed and board housings or cases sketch-designed. Thereafter, the electrical consultant would in consultation with the Architect finalise the electrical design and diagrams so that the final diagrams can be prepared and integrated into the comprehensive set of drawings. The consultant would also prepare a sectional draft specification for integration by the Architect in consultation with the electrical consultant into the comprehensive draft building specification, and the electrical work would be measured and billed in the comprehensive bill of quantities. The structural consultant could operate much in the same way, producing pencilled drawings and draft specification for integration into the comprehensive set of documents. In both cases the Architect would do much more than he generally does at present in relation to these particular sections of the work, and the consultant would be doing much less.

I am firmly convinced that until the professional side of the Building Industry re-arranges its operation so that a comprehensive co-ordinated set of documents for the complete building project is produced, we cannot expect the contracting or execution side of the industry to be fully efficient. I maintain, most strongly, that efficient execution can only result from complete control of the execution of the total project by the contractor. He must control the electrical work, the reinforcing, the plumbing, the painting, etc., and he should be encouraged to build a team within his organisation to handle as far as possible all the facets of building without sub-contractors.

It may come as a bit of a shock to many that under present conditions, a contractor may find himself handling only about 50 per cent. of the work on a sizeable contract — the residue being handled by sub-contractors or nominated sub-contractors. That is to say, the builder's profit, assessed over the whole contract cost, may really be earned on only 50 per cent. of the works. It is, of course, true that he has certain responsibilities in regard to the remaining 50 per cent. but these are by no means as great as for the work he executes in full without a sub-contractor. The sub-contractor also makes profit on his particular work, roughly in proportion to the contractor's profit.

I am firmly convinced that if the general contractor takes fuller control, and little or no work is handled by sub-contractors, his profit will tend to remain unchanged and a considerable reduction in building costs will result. His increased effort will probably be compensated for by eliminating the losses due to friction and lack of co-ordination between sub-contractors and sub-contractor and contractor, etc. — a heavy item to-day. The contractor of course will have to be generally better qualified for this fuller and wider control of the works than the average contractor of to-day.

Now, how to achieve this "completeness" in design and documentation on the professional side so that the contracting side of the industry will have the opportunity of improving its productivity and efficiency?

Firstly, I suggest that Architects must resist strongly the demands of the building owner in regard to commencement dates of building operations. We must see that sufficient time is made available for comprehensive documentation. This will not be easy, but if the building owner can be convinced that the increased cost of the building erected from incomplete documents is likely to exceed or at least be equal to the loss of rentals and extra interest involved, then the Architect will have won the day. It should also be pointed out that complete documentation before building actually commences, means speedy building.

Alterations during execution must be guarded against if we are to achieve a reduction in relative building costs even with complete documentation. Perhaps a percentage increase in the scheduled rates proportioned to the percentage variation would meet the case; the

principle being that a building without variation would not have its cost increased by disorganisation, whereas the building with variation would probably be upset to a degree, but the tenderer would know that he would be compensated for the cost of the resulting disorganisation.

The second important facet, possibly the most important, is to achieve greater co-operation between Architects and Consultants, and here I am going to suggest something quite radical, that is, the introduction in the shortest possible time of an additional class of member within the Institute — an Engineer member of the Institute of Architects (an E.M.I.A.). I envisage such membership becoming available to qualified specialists who desire to enter its association or partnership with Architects. They should, I suggest, only be granted such membership if they are prepared voluntarily to submit to the Institute's code of ethics and further on conditions that such membership would terminate automatically as soon as the partnership or association ceases or by the decision of the Institute. Partnerships and associations between E.M.I.A. and Architects would, I suggest, be the only partnerships, etc., between Engineers and Architects, permitted by the Institute.

Having put these suggestions to you, may I, in conclusion, take this opportunity of thanking my Vice-President-in-Chief and the members of Central Council for their unflinching support and assistance in the past year — and the members of the Executive Committee and its numerous Sub-Committees for their conscientiousness and hard work consuming much of their time. I would like to thank the Registrar and his staff for their meticulous attention to detail and the Registrar personally for his guidance and help during a very busy year.

SUMMARY OF ACTIVITIES COVERING SESSION 1951/52

PAPER BY THE REGISTRAR

Mr. President-in-Chief and Gentlemen: Regret was expressed last year that, because of the pressure of work involved in preparing for Congress, and because of staff difficulties, time had not permitted of the compilation of this Summary. It was gratifying to learn that this annual contribution was so much appreciated.

REPRESENTATION OF CONSTITUENT BODIES ON CENTRAL COUNCIL.

The procedure whereby the Constituent Bodies and the Eastern Province of the Cape are accorded representation on the Central Council, has been changed statutorily. There will be no more mathematical or statistical headaches in devising formulae based on proportional representation as at a given date.

The personnel of the Central Council is now enlarged to sixteen: that is, fourteen elected delegates and the two Government nominees.

The immediate object of changing the Regulation was to give primarily the Chapter, and secondarily the Natal Provincial Institute, each an additional seat.

The present allocation is: Transvaal, five seats; Cape, including the Eastern Province, three; the Chapter, three; Natal, two; O.F.S., one; Government nominees, two.

This change undoubtedly represents a big step forward, but I trust I may be permitted to refer to the position of Architects and Quantity Surveyors in East London. In October of last year the President-in-Chief and I (who were in that centre for the Master Builders' Congress) arranged an informal meeting with the local Architects and Quantity Surveyors. They do seem to be isolated. The only immediate assistance it has been possible to render was to send them—and this is now done regularly—a copy of all Central Council, Executive Committee and Board of Education minutes.

CELEBRITY.

King George VI—A cablegram conveying the sympathy of the President-in-Chief and Central Council, on behalf of both Professions, was despatched to the Royal Household, and duly acknowledged.

Robert Howden.—Tribute has been paid in the Press to Mr. Howden's pioneer work. As the same biographical notice was sent to the South African Press Association as to the local Press, I can only hope that something has been published throughout the country.

Being the only one here who was at the first meeting of the elected Central Council, in 1928, when Mr. Howden was your first President-in-Chief, you may wish to hear a few personal tributes.

Robert Howden had a love of his profession, and an earnest desire to work for its welfare and advancement, that some of his successors as President-in-Chief have equalled, but none has surpassed. He gave more than generously of his time and of himself.

Despite certain difficult traits in character which are to be found in every strong personality, he was really a lovable man. As one who

was for many years his intimate associate and confidant, I particularly admired the way in which he put the welfare of his profession above personal considerations.

He did much, especially in the early years of the Central Council, in assisting the Constituent Bodies to realise that, although local differences would perhaps always exist, concessions must be made from time to time in the interests of national unity.

He was also the first Chairman of your Board of Education. There was a tendency in those early days to regard the Architects as a technically trained person aspiring to professional status. There was also a tendency, in official circles, to appoint the Technical Colleges as Examining Authorities under your Act. I recall several interviews with the then Secretary for Education, Dr. Gie. Suffice it to say that, largely through the instrumentality of Robert Howden, Architecture became firmly established on a University basis, as one of the learned professions. And what he did for Architecture he also helped to do for Quantity Surveying.

Your Professions have shown their appreciation of his life-work by founding the Robert Howden Prize and by electing him an Honorary Life Member of the Institute.

Leonard Symes.—You are all aware of the tragic death of Leonard Symes, of Port Elizabeth. He had already shown himself to be an able and a most willing worker in Institute matters. We deplore his untimely demise.

MEMBERSHIP.

During the year under review there has been an exceptionally large number of Registrations and Enrolments. The Institute has gained 90 new Members: 53 Salaried and 37 Practising. As the geographical distribution has always proved of interest, here it is: Transvaal, 40; Cape, 25; Natal, 17; O.F.S., 8.

The Chapter has during the year gained 37 new Members: Salaried, 32; Practising, 5. Of these 37, 6 obtained a Degree; 22, a Diploma; 5, a Certificate; and 4 had the R.I.C.S. qualification.

APPLICATIONS FOR ASSOCIATESHIP, R.I.B.A.

The desire of young South African Architects to have those attractive letters "A.R.I.B.A." after their names, continues unabated. 38 Applications were approved during the year.

INSTITUTE'S FINANCES.

Despite certain abnormal expenses, there was a substantial surplus during the calendar year 1951 of (in round figures) £1,400. The large number of new Members already referred to produced in Registration and Enrolment Fees, £1,050, the remaining £350 being what may be termed the surplus on your administrative transactions during the year.

The total of the Institute's accumulated realisable assets is now (again in round figures) just over £9,000.

Perhaps I should draw attention to what may appear to be an anomaly in our accounting, from the time-factor point of view. The audited Accounts deal with the calendar year, January to December, whereas our administrative year is from April to April.

Reflected in the Accounts before you are three grants-in-aid made

by the Central Council:

To the S.A. Architectural Record	£193
To the University of Natal, for the Library of its School of Architecture	£100
To the Chapter, in respect of the travelling expenses of Coastal Members attending meetings of the Board in Johannesburg	£125

There has been a fourth grant-in-aid recently made by the Central Council (not reflected in the Accounts before you), that is, to the O.F.S. Provincial Institute, of £150, for the purchase of office equipment.

There has been a further and much larger grant—but in this case not directly from the Central Council's funds—of £500 to the Building Research Institute, to assist in subsidising its researches into Native Housing. This grant was made from what is shown in the Accounts as the National Housing Levy Fund.

In addition the Central Council has borne the cost of advertising the Certificate Course in Architecture and Quantity Surveying of the University of Natal, by means of which a comprehensive postal course is now made available to students who cannot attend a University. We also award four bursaries annually of £40 each, the selection of the bursar is left to the Schools of Architecture. These bursaries are for students not domiciled at a University centre. The Central Council has laid down the condition that the bursars must be South African nationals.

It may be of more than historical interest to point out that the Central Council has during the years financially assisted all five of its Constituent Bodies, and, thus far, two of the Universities in which there are Recognised Schools of Architecture. It is a safe prediction that it is only a matter of time when the other two Schools will make applications similar to those granted to the Universities of the Witwatersrand and Natal.

It may thus be said that the Central Council, as the guardian-parent, statutory created, at the desire of the former individual Associations, now our Constituent Bodies, has proved a kindly, helpful and indeed generous "Opa Boas."

S.A. ARCHITECTURAL RECORD.

During 1951 the Central Council paid a subsidy of 3d. per Member per copy. In July, 1951, the Transvaal Provincial Institute agreed that the loan made by it to the Record during 1950, of £200, be converted into an outright grant. The Cape Provincial Institute similarly agreed that the loan made by it be converted into a grant. The Natal Provincial Institute agreed to convert one half of its loan.

In September, 1951, at its meeting in Durban, the Central Council agreed to defer its decision on this matter until this present meeting, by which time you would be in possession of the audited Accounts of both the Record and the Central Council.

CERTIFICATE COURSE AND EXAMINATIONS.

The University of Natal has, at the instance of the Central Council, established a Certificate Course in Architecture and Quantity Surveying, thus offering educational facilities and statutory examinations to those students who cannot attend a University. The Central Council was at one time faced with the possibility of having to make good any financial loss sustained by the University in respect of these Certificate Courses. As already mentioned, the Central Council has also assisted the University by publishing an advertisement of these Courses in the Press in Port Elizabeth, East London, Bloemfontein, Kimberley, Vereeniging, Bulawayo and Salisbury.

QUALIFICATION OF TENDERS.

The Central Council has published in its minutes, copies of the correspondence between the National Federation of Building Trade Employers in South Africa and the Secretary for Public Works.

It will be recalled that, when the Institute and the Chapter arrived at the national agreement to qualify tenders, a very important reservation was made, that this time there should be no differentiation between the principles applying to Government tenders and to private tenders.

The Secretary for Public Works, on behalf of his Minister, could not and did not agree unreservedly to qualify tenders for works costing £20,000 or under. The Federation, despite this decision of the P.W.D., felt that the national agreement with the professions should continue unchanged. This information was transmitted to our Constituent Bodies with the suggestion that they discuss the whole question of qualification of tenders at their recently held Annual General Meetings, for report to the Central Council at this meeting.

I think attention should be drawn here to the criticism made by the Minister of Public Works in the Union Senate, in March of this year. He expressed disappointment at the demand by the Master Builders for more and still more concessions, and he made this statement, that a Government Department had to serve all sections and could not adopt a policy which would entrench one section of the community, as represented in one industry, without regard to the general public interest.

CONGRESS.

It will be seen from the Accounts that the Congress of South African Architects and Quantity Surveyors held a year ago cost £331. It is difficult to assess the value or worthwhileness of a Congress. Your Executive Committee is on record to this effect, that from the point of view of the quality of the papers and the value of the discussion thereon, the Congress was a distinct success, but that the attendance of Members was very disappointing.

It is difficult to resist mentioning that there was quite an improvement in the attendance of Members at the Cocktail Party given by the Mayor of Johannesburg. Making a point of inquiring why certain Members had not come to the Congress, the reply was "Too busy."

Five Congresses in twenty-four years—an average roughly of one in five years—can hardly be termed extravagant or excessive. Anyhow, your Executive Committee has made certain suggestions for ensuring a minimum attendance of official delegates, to be appointed by each of the Constituent Bodies, at the next Congress.

STANDARD FORMS OF BUILDING CONTRACT.

After negotiations with our friends the Master Builders, spread over several years, but concentrated within the last twelve months, the Standard Forms of Building Contract have been revised and reprinted. It should be pointed out here that the present revision is not complete. There are three or four outstanding items which have been referred to the recently formed Joint Council for the Building Industry, for consideration and recommendation. These items are the 5 per cent. Cash Discount, Clauses 15 and 24 in relation to Sub-Contractors and Nominated Sub-Contractors, and the Delay in the Payment of Certificates, with reference to the suggested charging of interest thereon.

The Architectural Profession is fortunate in having Members who, in addition to what one expects in an Architect, that is, planning, artistic and imaginative ability, possess a sound knowledge of legal and business principles as applied to the administration of building contracts—a knowledge that is more generally associated with members of the Quantity Surveying Profession.

I trust I am not being invidious, but I feel I should place on record that the brunt of the work involved has fallen upon our President-in-Chief, Mr. Todd, Mr. Louw and Mr. Haddon; and that in this respect, as in others, your Professions are deeply indebted to these gentlemen and to their colleagues.

SHORTAGE OF STEEL AND CEMENT.

You will know, from the Central Council's minutes and from the circulars issued to all Members, of the representations made jointly by the Institute, the Chapter and the Federation, to the Secretary for Commerce & Industries. It seemed at one stage that there would be considerable difficulty in reconciling the views of the Institute and Chapter with those of the Federation. But the creation of the recently formed Joint Council for the Building Industry helped materially in overcoming this hurdle; that is, the recognition of the necessity for the Building Industry being in a position to represent a united front when approaching Government Departments.

Frankly, our representations have not produced any tangible result. The Department of Commerce & Industries has expressed keen interest in the establishment of the Joint Council, and has further expressed appreciation of the offer of advice and consultation made by the Joint Council.

One of the replies from the Department is to the effect that the restrictions imposed by the Minister in November, 1951, are of a temporary nature; that as soon as the acute shortage of steel and cement is relieved, exemptions will be freely granted; and that it is not considered necessary to set up anything in the nature of elaborate machinery to administer the restrictions.

ARCHITECTURAL SCIENCE COMMITTEE.

In January of this year the Architectural Science Committee (consisting of nine members: five Architects, two Quantity Surveyors, and two representatives of the Transvaal Universities which have recognised Schools of Architecture and Quantity Surveying) was brought into being. The extra-Transvaal Constituent Bodies of the Institute, and the other two Universities which have Recognised Schools, have been empowered to appoint a Corresponding Member of the Committee.

It is difficult to summarise briefly the research and investigatory work, leading *inter alia* to the adoption of Standard Codes of Practice, contemplated by the Architectural Science Committee. It is an ambitious but a highly laudable endeavour. Tribute must in fairness be paid to two Institute Members, not on the Central Council, Mr. W. E. Edleston and Mr. H. G. Summerley, who have done a tremendous amount of work in this matter, in an honorary capacity.

SUGGESTED "SUMMER SCHOOL" (POST-GRADUATE).

It was agreed, in principle, to adopt the recommendation of the Architectural Science Committee that, as an experiment, a "Summer School" be inaugurated, at the University of the Witwatersrand, during

the week commencing Monday, September 22nd, 1952; the first "session" to be sponsored by the Transvaal Provincial Institute.

S.A. ACADEMY EXHIBITION.

As the result of its discussion with Mr. B. S. Cooke (Chairman of the S.A. Academy Committee of the T.P.I.) the Central Council agreed that the Executive Committee of the Central Council, in co-operation with the Academy Committee of the T.P.I., be requested to convene a joint national meeting of the various bodies represented; that a representative of the Cape Provincial Institute be asked to attend the meeting at the expense of the Central Council, and that the representatives of bodies other than architects be asked to attend at their own expense.

It will be announced at the meeting that the Central Council has agreed to put the Academy on a national basis, and that the suggestions be conveyed to the meeting that the re-formed Academy be known as the "South African Academy of Contemporary Art." It was decided also that the term "Art" is to embrace Architecture.

Each of the constituent bodies of the Institute will be authorized to appoint a corresponding member to the committee as will be established later, and special attention will be drawn to the necessity for framing a constitution for the re-formed Academy.

NATIONAL HOUSING LEVY.

It was agreed, in respect of architectural work, that the levy formerly imposed be no longer enforced in relation to new work, and that every endeavour be made by the Provincial Institutes concerned to collect the levy in respect of past work.

It was also agreed that the levies so far collected be retained as a special fund, the utilization of which will be considered and decided later, to be applied to matters related to housing; and that, in respect of new architectural work, if the Architects wish to make voluntary contributions towards the fund, such contributions will be welcomed.

The sum of £500 has been donated by the Central Council to the National Bureau Research Institute to assist them in researches into Native Housing. The original target of 6,000 national houses has now been reached and the approximate number of houses or dwelling units either completed or under construction at the beginning of 1952 for the various towns are as follows — Pretoria district 250, Witwatersrand 2,200, Orange Free State 1,050, Northern Province 275, Western Province 1,080, Eastern Province 1,300, and Border 190.

PROPOSED SICKNESS, INSURANCE AND PROVIDENT FUND.

The Central Council decided to support, in principle, the setting up of such a fund, as a non-Institute matter. In order to set the machinery in motion an inaugural committee of three of the T.P.I. and three members of the Chapter will be formed under the chairmanship of Mr. John Cowin. The Central Council will bear the preliminary expenses necessarily incurred in obtaining actuarial assistance.

THE AESTHETICS AND PLANNING OF NATIVE HOUSING.

In reply to a letter from the Director of the Building Research Institute, it was decided to suggest that he convene a conference of all interested bodies, such as the representatives of Local Authorities, the National Housing and Planning Commission, the Institute and the Chapter, and it was further agreed that, in principle, the Institute is not opposed to the suggestion that type plans for native housing to be built by the natives themselves be done on a "pro Deo" basis.

UNIVERSITIES FINANCES COMMISSION OF INQUIRY.

The Board of Education has been authorised to give evidence before this Commission on the questions, *inter alia*, of the limitations of students and the necessity for the provision of possible additional Schools of Architecture and Quantity Surveying in South Africa.

25th ANNIVERSARY OF CREATION OF INSTITUTE.

A dinner will be held on the occasion of the 25th anniversary of the creation of the Institute, and the details of which will be left to the Executive Committee.

OFFICE BEARERS FOR 1952-1953.

Mr. Hugo Naude was elected President-in-Chief.

Mr. T. H. Louw was elected Vice-President-in-Chief and Chairman of the Executive Committee.

Mr. Hugo Naude and Mr. Michael Waterhouse were elected the Institute's two representatives on the Council of the R.I.B.A.

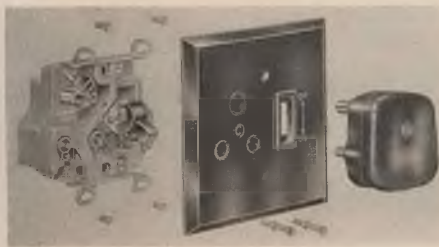
APPRECIATION.

Finally, may I refer to the outstanding work performed by the President-in-Chief, Mr. Erik Todd, during his strenuous year of office. A more conscientious, self-sacrificing President-in-Chief I have not known, nor one more pleasant to work with. And what has been said of Mr. Todd is equally applicable to Mr. Louw. They have been materially helped by their colleagues on the Executive Committee.

J. S. LEWIS,

Registrar.

TRADE NOTES AND NEWS



AN ESSENTIALLY SOUTH AFRICAN SWITCHED SOCKET-OUTLET.

Here, for the first time, is a combined flush switched socket-outlet designed to South African electrical requirements. Styled to harmonise with the South African-made "Lincoln"

lighting switch, this new "Lincoln" Switched Socket-outlet embodies a 15 amp. quick make and break switch with a 15 amp. three-pin (round pin) socket-outlet on a single base arranged for flush mounting in the type of box now favoured by electrical engineers throughout the Union.

The mechanism of the switch is identical with that employed in the well-known 15 amp. "Lincoln" Switch and conforms to the requirements of B.S. 1299; the socket-outlet and plug comply fully with the latest provisions of B.S. 546. The base is of highly vitrified South African porcelain and all inter-connections between switch and socket-outlet are made permanently.

This unique wiring accessory comes to fill a long-felt want. By providing high efficiency switch socket-outlet control in one neat, streamlined, flush unit, it will obviate the makeshift assembly of separate switch and socket-outlet and give safe, reliable control at every "power point".

The electrical trade may be assured of continuity of supply as the "Lincoln" Flush Switched Socket-outlet is being produced in South Africa by J. A. Crabtree (Pty.) Ltd., P.O. Box 413, Springs, Tvl. and stocks are carried by wholesale distributors in all important centres.

BOOK REVIEWS

REINFORCED CONCRETE, by Oscar Faber, C.B.E., D.C.L. (Hon.), D.Sc., M.I.C.E. etc.

8 vo., 232 pages, 52 figures, diagrams & photographs and numerous tables. E. & F. N. Spon, Ltd., London 1952 30/- net.

The first half of the book discusses the general properties of the materials, the principles of design and their application to structural elements, slabs, beams, columns and foundations. The second half is occupied by a brief survey of selected subjects, namely piling, silos, shells, reservoirs, chimneys, factory-made concrete and prestressed concrete.

This is not a textbook for beginners nor is it a designer's handbook, in spite of the numerous design tables which will be found useful in every reinforced concrete drawing office. If it must be classified it should be called a survey of the whole subject. Its most remarkable feature is the synthesis of scientific theory, laboratory research and the practical requirements of design office and building site. From all these aspects the author is a well known authority, yet his approach is never "academic". Everywhere one notices the practical designer who knows about the difficulties of the man who "has to get the thing built".

In many instances the author points out the discrepancy between conventional calculation and the actual behaviour of the material, taking into account the way in which the latter will vary over a long range period due to plastic yield. This aspect of the book is truly excellent and extremely useful, particularly as numerical examples are worked through for the purpose of illustration. It cannot fail to warn the designer about the limitations of simplified conventional calculation, and will induce him to deviate from them in doubtful or important cases.

Future editions would do well to eradicate some minor errors in the text (in connection with T-beams and foundations), and to use the word "clearly" more sparingly. If — constantly — some facts follow "clearly" from some illustration, this becomes clearly annoying.

M.M.

FOUNDATIONS FOR HOUSES AND OTHER SMALL STRUCTURES, by W. H. Elgar, M.A., M.Eng., A.M.I.C.E., F.R.I.C.S. 8 vo., 92 pages. 51 illustrations. The Architectural Press, London. 1951. 12/6 net.

Looking over the Table of Contents of this small book one is amazed about the large number of subjects on which the author has touched. Indeed there is hardly any aspect of this complex problem, hardly any type of foundation, that is not mentioned, barring only the most complicated bridge foundations. The book, therefore, gives much more than its modest title promises, and also the designer of large multi-storey structures will read it with advantage.

It is, therefore, not surprising that many questions are only just mentioned and not fully discussed. To this extent the book is not a textbook but rather a guide or an introduction. The way in which it makes the uninitiated acquainted with elements of soil mechanics is masterly, and likewise, every other chapter appears to be written with the object of stimulating thought and further study on the part of the reader. All the principles which govern the behaviour of subsils and foundations are set out, briefly and clearly. The attention is drawn to many pitfalls which may confront the designer, such as neighbouring trees, sloping sites and many others.

M.M.

THE DESIGN AND PLACING OF HIGH QUALITY CONCRETE, by D. A. Stewart, A.M.I.C.E., A.M.I.E.E. 8 vo., 112 pages, 40 diagrams & 8 photogr. plates. E. & F. N. Spon Limited, London. 1951. 25/- net.

The book deals, after a brief review of the present day position, with characteristics and properties of concrete, workability, methods of batching and mixing, placing and compacting, the latter particularly by means of vibration, the contractor's problem in vibration, design of the concrete mix, and it closes with a chapter on concrete specification.

This is not an "easy" book to read. It claims the reader's full attention and concentration on every page. The author attempts to define in exact terms all the properties of concrete which he discusses. The book reads therefore like an exact science although "concreting still remains an art and is likely to continue so for many years".

Whether the definition of workability is altogether successful is still an open question, but it is certainly a lot more useful than the usual vague phrases such as "the ease with which the concrete gets into the mould and around the reinforcement". Nowhere does the author sound dogmatic, and he draws attention to many questions which still require research and investigation.

A comparatively large portion of the book deals with vibration, and this chapter should be studied by every one concerned about producing vibrated concrete. The reader is first given a refreshed course in the dynamics of oscillations which is followed by an account of theory and method of mix design for this special purpose.

The author's leitmotif is the discrepancy between concrete as commonly produced by slipshod methods and the fine material it could be. The South African reader cannot help thinking of the appallingly low standard of concrete usually produced in this country. The average S.A. contractor does not even know to what extent the quality of his concrete is governed by the Native at the water tap. South African practice of concrete making is so shockingly poor that this book should be forced into the hands of every one who ever comes near a concrete mixer.

M.M.

OBITUARY



MR. R. HOWDEN

ROBERT HOWDEN

Robert Howden (the son of an Anglican clergyman) was born in Yorkshire in 1869. As a very young man he went to Australia and there qualified for the Associateship of the Royal Victorian Institute of Architects.

He came to South Africa in 1893 and for more than fifty years played not only a prominent but a vital part in the administration of the architectural profession in this country.

He was one of the prime movers in the many years of work that culminated, in 1927, in obtaining statutory registration for the professions of Architecture and Quantity Surveying in South Africa.

In architectural practice his firm, then Howden & Stewart, won the competition for the original Technical College in Eloff Street, Johannesburg, and were responsible for several churches, commercial buildings and many residences in the city.

He was President of the former Association of Transvaal Architects and its successor in law, the Transvaal Provincial Institute; first President-in-Chief of the Institute of South African Architects; first Chairman of the Board of Education established by the Institute; President of the Chapter of S.A. Quantity Surveyors; and a Fellow of the Royal Institute of British Architects and a Fellow of the Royal Institute of Chartered Surveyors.

For many years he has been affectionately regarded as the father of the architectural profession in South Africa. In appreciation of his lifelong services, the Howden Scholarship was brought into being, awarded alternately, by means of a competition, to South African architects and quantity surveyors.

He was elected a member of the Royal Society of Arts in recognition of his research work in eliminating reflections from glazed pictures in art galleries. As a result he was appointed South African collaborator with Sir Edwin Lutyens on the Municipal Art Gallery in Joubert Park, Johannesburg.

During World War I he was an officer in the S.A.E.C. He was the recipient of the Jubilee Medal awarded by the late King George V.

In the realm of sport he was one of the keenest exponents of the game of bowls in South Africa and wrote many articles on the game.

NOTES AND NEWS

THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

REGISTRATIONS

The following members have been enrolled as salaried members:— B. B. Shagham, T. L. Perkins.

Special Advertisements Relating to Buildings in this Issue

C. HOFMAN

BUILDERS CONTRACTORS

and ENGINEERS

WERE THE BUILDERS OF

GROOT DRAKENSTEIN



OFFICES:

59, DE VILLIERS STREET, JOHANNESBURG

Phone 22-6113

P.O. Box 8928

PREMIER CONCRETE WORKS7/13, MARITZBURG STREET, CITY & SUBURBAN,
JOHANNESBURG.

P.O. Box 127, Jeppestown. Tel. No. 22-0768.

Tel. Address: "FIREPLACE."

TERRAZZO SINKS MANUFACTURED
AND SUPPLIED BY**PREMIER CONCRETE WORKS**Also manufacturers of all Terrazzo Work in Situ
and Precast, Cement and Terrazzo Floor Tiles,
Terrazzo Fireplaces, Putty Lime, etc.

How will it look?

SUPERB — IF YOU SPECIFY SAND SANITARY
FITTINGS, AS IN THE NEW GROOT DRAKEN-
STEIN BUILDING.

SHOWROOMS: 95-107 BREE ST.,

NEWTOWN, JOHANNESBURG.

TEL. 34-1901

SAND & CO. LTD.

BRANCHES AT:

BLOEMFONTEIN, PRETORIA,

DURBAN.

Special Advertisements Relating to Buildings in this Issue



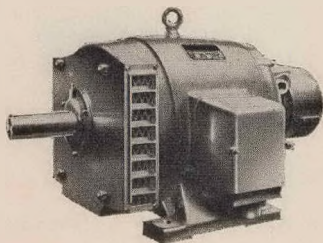
5,000 Square yards
of Rhodesian Teak
wood block flooring
were laid in
"Groot Drakenstein"

RHODESIAN TIMBERS LIMITED

EAGLE STAR HOUSE, COMMISSIONER STREET, JOHANNESBURG. Box 5530. Phone 33-6546.
Also at DURBAN and WELKOM.

THE ENTIRE ELECTRICAL INSTALLATION
IN GROOT DRAKENSTEIN
was carried out by

S. M. MISSING (PTY.) LTD.



Phone 23-7847

P.O. Box 3616



CONTRACTORS TO GOVERNMENT MINES AND MUNICIPALITIES

Better Building with **ANGLO-ALPHA**

Portland
CEMENT



ANGLO-ALPHA CEMENT LIMITED

Anglovaal House

Johannesburg

CRITTALL-HOPE

METAL WINDOWS



Grand Parade
Centre,
CAPE TOWN.

Hot-dip galvanising is
strongly recommended
for rust-proofing windows
in coastal areas.

CRITTALL-HOPE
METAL WINDOWS (S.A.) LTD.

Office : 830 Maritime House, Loveday Street, JOHANNESBURG. P.O. Box 3047. Phone 33-1804.
P.O. Box 2908, CAPE TOWN. P.O. Box 1494, DURBAN. P.O. Box 119, PORT ELIZABETH
P.O. Box 1332, PRETORIA. P.O. Box 353, PIETERMARITZBURG. K.G.I. Building, Cross Street, KROONSTAD.

**THE
FIBREBOARD
YOU WERE
WAITING FOR**



THE AFRICAN BUILDING BOARD CORPORATION, LTD.

Registered Office:
DURBAN
2 4 5 3 1

Mill Office:
CANELANDS
NORTH COAST, NATAL

TELEPHONES:
VERULAM
71, 107 & 122

Journal of the SA Architectural Institute

PUBLISHER:

University of the Witwatersrand, Johannesburg

LEGAL NOTICE:

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.