

# SOUTH AFRICAN ARCHITECTURAL RECORD

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OF SOUTH AFRICAN ARCHITECTS AND THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

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EDITOR VOLUME 36

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# 12

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## **"PAULHOF"**

**A NEW BLOCK OF SHOPS AND OFFICES, PAUL KRUGER STREET, PRETORIA**

**OSCAR HURWITZ, M.I.A., ARCHITECT**

The position of the shops in this building erected on the corner of Paul Kruger and Minnaar Streets, Pretoria, was dictated by the fact that Paul Kruger is the main road between the Station and Church Square.

The offices, with their main entrance in Minnaar Street, were designed to suit the requirements of the Department of Commerce and Industries. Wherever possible, stock windows, doors and fittings were used in the erection of this Building.

The reinforced concrete frame structure was faced externally with Kirkness stock "Vertex" face bricks, and relief was provided in the form of continuous projecting hoods to all windows.

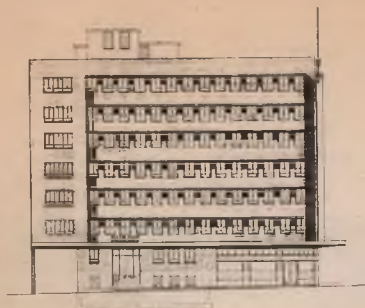
The north wing of the fifth floor was designed to house the complete working arrangement of the Minister, Secretaries and Waiting-rooms, etc., of the Department.

The Minister's room itself is finished with "Australian" walnut panelling and fitted with concealed strip lighting.

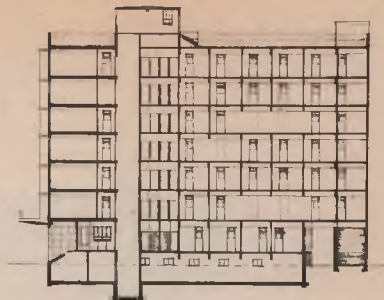
Photography: Alan Yates.



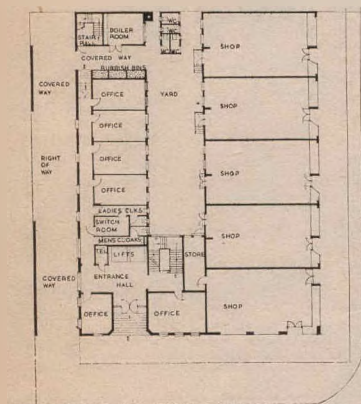
SEE DRAWINGS  
OVERLEAF



NORTH ELEVATION



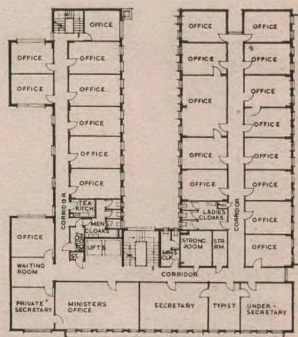
SECTION THROUGH BUILDING



MINNAAR STREET

GROUND FLOOR PLAN

PAUL THOMAS STREET



FIFTH FLOOR PLAN

SCALE

"PAULHOF" — A NEW BLOCK OF SHOPS AND OFFICES IN PRETORIA



## LEX BUILDING, PIETERSBURG, TRANSVAAL

H. W. E. STAUCH AND PARTNERS, M.M.I.A., ARCHITECTS

### SITE:

The site is a corner stand of 60 ft. by 30 ft., facing North and East, and with a cross fall towards the North-West. (Only due to the generous coverage allowed by the Bye-laws, was it possible to fit the required accommodation onto the very small site.)

### PROGRAMME:

*Ground Floor:* Suite of offices for lawyer and agent, with storage basement. Separate entrance for Natives desired.

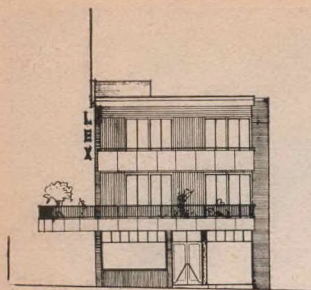
*Upper Floors:* Two 2-roomed flats, one 4-roomed flat. Easy access from street was required and also a separate service stair. All flats to have balconies or porches, the large flat to have a roof garden. Kitchens and bedrooms to

have built-in fittings. Perfect cross-ventilation to all rooms essential.

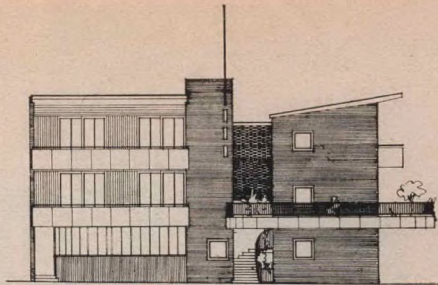
### SOLUTION:

The whole of the ground floor is occupied by a lawyer's office with the public entrance from the main business street on the narrow north side of the stand. A stair to the basement is provided from the general office, which has a dropped ceiling, the space thus created being used for records storage.

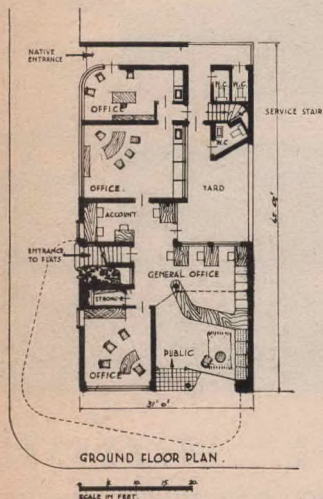
Flats were designed on the "duplex" system in order to obviate a large cumbersome main stair. Internal stairs to flats have been placed in least valuable positions; upper half of the internal stair to front flat was placed over portion of main stair to flats thus gaining valuable extra space.



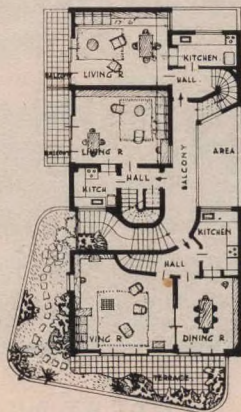
NORTH ELEVATION .



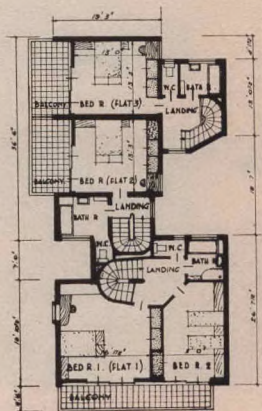
EAST ELEVATION .



GROUND FLOOR PLAN .



FIRST FLOOR PLAN .



SECOND FLOOR PLAN

All rooms to flats are fitted with sliding doors which conform to a standard size. The hood projecting over the street has a covering of 18" of soil and acts as roof garden related to the living rooms of the larger flat.

#### CONSTRUCTION AND FINISHES:

The first floor is supported on concrete columns, otherwise the structure has 9" external, and 4 $\frac{1}{4}$ " internal brick walls.

External face-bricks are multi-coloured rustic. Balcony parapets are precast reconstructed stone, with a light grey finish. The external panels between sliding doors, on the lintels of the upper floors and underside of eaves are faced with argon boarding in natural colour, as are the ceilings to the upper floors. Floors generally are wood block and walls are plastered with stippled oil paint finish. The roof is covered with corrugated iron except for the small projection at the rear and the link where concrete flat roofs are used.



ABOVE, LEFT: The main stairs leading to the flats. ABOVE, RIGHT: Interior of the office from the public space looking towards the general and other offices. Note the storage space over the general office. RIGHT: The public space and general office. BELOW: The interior of the living room of the four-roomed flat. The partition wall at left is of narrow boards, which are also used externally on the walls facing onto the balconies. Note the roof garden on the cantilevered slab over the street.





## P. K. T. V. FERTILIZER STORE, POTGIETERSRUST, TRANSVAAL

(POTGIETERSRUST KOOPERATIEWE TABAKPLANTERS VERENIGING)

VERHOEF, SMIT & VILJOEN, MM.I.A., ARCHITECTS

### PLAN REQUIREMENTS

A dustproof hall approx. 120' x 50'. To be used at first as a store for fertilizer and to be converted at a later date for storing heavy farm implements — ploughs, tractors, etc.

As the site is in the industrial part of Potgietersrust provision had to be made for the offloading of goods arriving by a branch railway line. A platform under cover had also to be provided for dispatch by lorry. For easy manipulation a 2-ton crane electrically driven and hand operated is provided. A staff of one European and four natives control the working of the store.

### SOLUTION

It was decided to use the concrete shell roof construction in view of the economical and dust-proofing requirements. Arranging the plan with the railway feeding one end of the store, and the lorry loading at the other end, the two end bays of the vault were carried over to form a covered drive through and platform space. The tie beam between the vaults was utilised as the carrier for the crane rails, and extends from end to end of the vaulting.

The natural fall in the ground permitted the arrangement of a platform raised above the ground level on the lorry side, while the railway line being in a cutting provided a platform at that end.

### MATERIALS AND CONSTRUCTION

Reinforced concrete columns and shell vaults. Vaults span 20' x 50' and concrete thickness varies from 3½" at the beam end to 2" on top of the vault. Face-brick panels and glass to sides with glass filling the area of the vault.

Steel doors and sliding roller shutters at both ends where crane passes through.

Rubberoid bituminous sheeting as waterproofing.

Aluminium paint to roof.

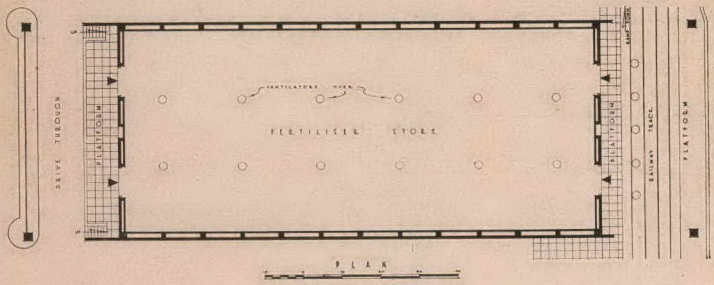
Fluorescent lights.

Concrete floor.

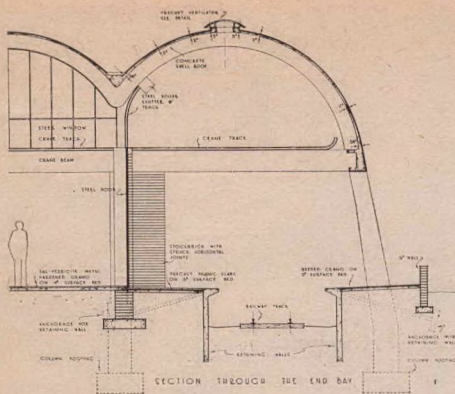
Distemper to walls and ceiling internally.

The approximate cost of the concrete structure alone with the waterproofing worked out at approximately 15s. 6d. per sq. ft. of the plan area.

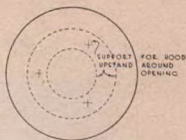




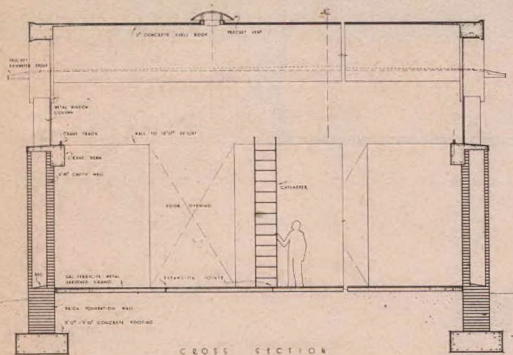
VIEW SHOWING LOADING BAY AT RIGHT.



SECTION THROUGH VENT



PLAN OF VENT



CROSS SECTION



P.K.T.V. FERTILIZER STORE

# EARLY BA-FOKENG ROCK SHELTER DWELLINGS AT NTLO-KHOLO

BY JAMES WALTON

*In the extensive rock shelter of Ntlo-Kholo, in Basutoland, are remains of dwellings which have been in continued use for over two centuries. Instead of demolishing the old structure and replacing it by a new, the practice has been followed of adding the new huts to those already existing. In this way a complete evolutionary sequence has been preserved, affording a rare picture of an early eighteenth-century Bantu settlement and the subsequent changes which it has undergone.*

*Somewhat similar structures exist elsewhere, but generally these are of later date and were built as places of refuge during the Nguni devastations*

Students of African folk culture and particularly folk building are often faced with a lack of historical data owing to the merging of individual cultures in quite recent times. Within the last twenty years traditional house types such as the corbelled stone hut of the Ba-Tsoeng and Ba-Taung have been completely replaced by the rondavel or the rectangular house. Culture contacts have tended to efface the former tribal individuality and a study of present-day cultures often throws little light on early tribal movements and associations. It is all the more valuable, therefore, when a site exists which has been in continued occupation over a number of centuries and where each stage of development has been preserved. Such is the case at Ntlo-Kholo in Basutoland.

Ntlo-Kholo, "the great house," is an extensive amphitheatre (Plate I) set in the mountain of the same name and adjoining Moshesh's stronghold of Thaba Basiu. Half way up the rock face wind and rain have excavated a narrow ledge out of the soft red beds underlying the Cave Sandstone to produce a continuous rock shelter extending for over half a mile. It is terminated at each end by rocky streams one of which emerges from the large cave after which the mountain is named. Access to this rocky ledge can only be gained at each end and by means of a steep path up the rock face in the centre. It commands a wide view and is an almost impregnable position. It was occupied in Wilton times, as the abundance of stone implements indicates, then by the Bushmen, later by the first Bantu invaders of the country and it has been continuously occupied ever since.

Those who lived on this rocky platform constructed huts simply by building a wall to enclose part of the cave and by employing the overhanging rock as the roof. They were built in clusters with common walls serving two or three huts. The earliest are situated to the rear of the rock shelter and later huts were tacked on to them, thus providing a complete evolutionary sequence.

Hut group A consists of three huts and is undoubtedly the oldest cluster, the one marked 'a' being the first to be built. The original entrance was a circular opening, 18 inches in diameter and about 9 inches above ground level (Fig. v). According to tradition such doorways were constructed in order

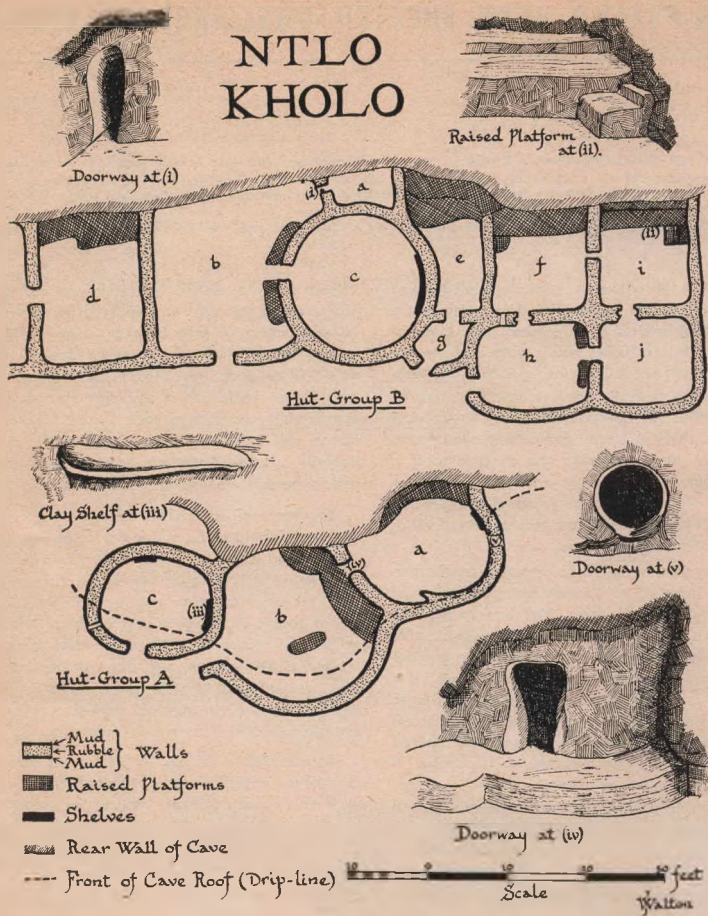
to keep out wild animals. No comparable examples are found in any of the Ba-Sotho huts to-day but far to the north, in the Nuba Mountains of Anglo-Egyptian Sudan, the *Maro* dwellings have entrances which are apparently identical (1). At a later date this entrance was filled in with rubble and smeared over on the inside and a new doorway was made. This is approximately horseshoe-shaped, 1 foot 4 inches wide at the bottom and 2 feet 10 inches high (Fig. iv). In front of this doorway is a raised platform, common to almost all the huts and in general use among the Ba-Sotho to-day.

The front wall is of rubble set in clay and has a thickness of from 1 foot 10 inches to 2 feet 6 inches. Outside and inside it is smeared with a mixture of clay and cow dung which was renewed periodically, each time with a different colour. As a result the clay has accumulated to a thickness of several inches and in section shows up to sixty bands of alternating brown, yellow and orange. The rock face, which forms the back of the hut, is also smeared with clay. All the huts, of whatever form, are smeared with the same number of layers and it would appear, if the smearing were done annually, that the practice only started some sixty years ago.

A rock ledge at the back of the hut has been covered with clay to form a platform, about two feet high, on which pottery and other family treasures rested. In almost all the huts attached to the rear wall of the cave this platform is found and a raised mud platform still occupies a similar position in Ba-Sotho huts of to-day (2). A small clay shelf similar to that shown in Fig. iii is attached to the wall. There is no window in this hut but a gap at the top of the wall in one corner admits a certain amount of light.

In front of hut 'a' is a second hut, 'b', similar to the first although the doorway has now been demolished. In the centre of the floor is an elongated oval seat of rubble smeared with clay. Such seats are not found in modern Ba-Sotho homes but they do occur in Ma-Shona huts (3). This hut also has no window and it would appear to have been built shortly after hut 'a'. Hut 'c' is of similar pattern to the first two but it differs from them in having a 'window' which is merely a circular hole in the wall, 6 inches in diameter. It is a universal

# NTLO KHOLO



feature of all the later huts at Ntlo-Khoho but it has disappeared from use elsewhere in Basutoland.

Hut group B is of very different pattern and of considerably later date apart from hut 'a' which is comparable to hut 'a' in group A and has a somewhat similar horseshoe-shaped doorway (Fig. i). Attached to this hut is a circular rondavel to which was added a series of almost rectangular rooms, commencing with 'e', 'f', 'i' and 'j'. At this stage building apparently

halted for a time as the entrances to huts 'c' and 'j' were flanked by low mud platforms. Then huts 'h', 'g', 'b' and 'd' were added.

The walls are exactly like those of group A. Except for hut 'a' the doorways have grooves down each side to accommodate door jambs of untrimmed branches and were apparently fitted with doors of wood or reeds, high enough to admit a man without stooping. The window openings are the same

small holes and the rock shelf for storing pots is found in all the huts adjoining the cave wall. Most of these platforms are wide, up to three feet, and in hut 11 two steps are provided to reach the platform (Fig. 11). The tiny clay ledges are replaced by clay shelves, copies of European wall-cupboards.

Elsewhere along the rock ledge are other huts, usually rectangular and sometimes with partly thatched roofs to bridge the gap between the top of the wall and the edge of the cave roof. Adjoining one of these rectangular huts, which is still occupied, is a hut similar to huts 'a' in groups A and B (Plate II). It is now used as a pigsty but it originated as a dwelling and thus conforms to a widespread feature of architectural evolution whereby the dwelling of one generation survives as an outbuilding for the next. Thus the *mahlongaafatse*, which was the normal dwelling of the Ba-Koena fifty years ago, has now been largely replaced by the *randavei* but it continues to be built as a fire-hut or store-room. Similarly the corbelled stone beehive hut of the Ba-Tsoeneng is now only employed as a fire-hut, fowl hut or grain store.

Who were the builders of these strange dwellings at Ntlo-Khola? The earliest occupants of the site were people with a Wilton culture and it was definitely the home of Bushmen when the first Bantu people, known as the Ma-Phetla or Ba-Tsoeneng, arrived about 1700. These early Bantu peoples intermarried with the Bushmen and when they reached Ntlo-Khola their chief, Matelile, in deference to the wishes of his Bushman wife, occupied the cave instead of building huts. The cave, being the residence of the chief wife, was given the name of Ntlo-Khola, "the great hut."

The Ma-Polane, who followed the Ma-Phetla into Basutoland, also lived for some time at Ntlo-Khola. So did the Ba-Phuthi who arrived somewhere about 1740. Prior to reaching Ntlo-Khola, however, the Ba-Phuthi met the vanguard of the Ba-Fokeng, a number of whom joined the Ba-Phuthi at Ntlo-Khola (4). According to local tradition these Ba-Fokeng were responsible for building the first huts within the cave shelter at Ntlo-Khola.

The occupational sequence may be summarised as follows:—

1. Prior to 1700. Occupied by people with a Wilton culture and Bushmen.
2. 1700-1740. Occupied by Bushmen, Ma-Phetla and Ma-Polane.
3. 1740. Occupied by Ba-Phuthi and Ba-Fokeng. First huts built by walling-off a portion of the shelter with a semi-circular wall of rubble and mud. Small circular door, no windows, clay shelves and storage platforms.
4. Approximately circular huts. Low, narrow, horseshoe-shaped doorways, small circular windows, clay seats, shelves and storage platforms.
5. Sub-rectangular additions made. Rectangular doorways with door jambs of undressed timber. Clay ledges replaced

by clay wall-cupboards. Circular windows, clay seats flanking doorways, and clay storage platforms retained. Roofs wholly or partly thatched.

6. Rectangular huts. Only original features retained are the small circular windows and clay seats.

Dwellings formed by walling-up part of a cave also occur in other parts of Basutoland although they are later in date than those of Ntlo-Khola. Lagden has photographed examples at Leribe and Berea (5) and there are others at Qhoashing Falls and near Sehanghong. Even to-day rock shelters are commonly employed as cattle kraals, made by constructing a wall around the front.

Stuyt has described somewhat similar Ba-Venda cave dwellings from Makonde. "The small creeks and recesses in the sheer precipice have been bridged and fortified with stone masonry, making an impregnable hiding-place from which the defenders could do yeoman service with the bow and arrow, unseen by the enemy; the little balconies and recesses appear like so many swallows' nests, most of which were reached by the defenders by scrambling to their perches, with the help of monkey ropes, up the sheer face of the cliff" (6). This account is not sufficiently detailed to allow any comparison with the Ntlo-Khola examples.

Further north, at Inyanga, cave shelters also occur. Along the cliff face are numerous small caves or deep clefts showing obvious signs of habitation. "The entrances are walled up and the crevice roofed in, and where space permits on the narrow rock ledge in front of the cave are two or three small stone hut circles, also with covered entrances. Some of these cliff dwellings are well and carefully built, the stones chosen and placed with some attempt at facing. An interesting structure on this ledge was a well-built rectangular shelter 5 ft. deep by 3 ft. wide, built up against the cliff face and entered by an opening in the roof, which was slabbed over with large flat stones. It suggested a burial place . . . but only a few small fragments of pottery and a few 'dassie' bones were found . . . this, then, may have been a storage cave. This 'built' cave was on the rock ledge already described, on which were three other circular stone huts built into the parapet wall of the ledge, or against the rock face which rose sheer above it. In one of these hut circles a small recess or cupboard had been constructed in the hut wall by careful placing of flat stones. This little rectangular 'cubby-hole' was 16 ins. long, 9 ins. deep and 9 ins. high. Another similar recess was found in the wall of another of the built-up crevices of the particular site.

"All these shelters, though adequate for hiding or short-term occupation, are miserable as dwellings, exposed as they are to the prevailing cold south-east winds and mists.

"One isolated cave was situated under the north-facing cliff of a side gully. It was almost in the rocky bed of a steep and fast-flowing stream, and almost directly under a



PLATE 1: THE SITE OF NTLO-KHOLO.



PLATE 2: HUT GROUP, THE RECTANGULAR HUT IS NOW USED AS A PIGSTY.

40 ft. waterfall. The entrance conformed to the usual tunnel size of 2 ft. 7 ins. in height and was beautifully constructed, the rest of the cave opening being walled up" (7).

There are some points of resemblance between the rock shelter dwellings of Inyanga and Ntlo-Khola but Mr. Roger Summers informs me that the former are much more crude. He dates them provisionally between 1830 and 1890 and suggests that they were places of retreat during and immediately after the Nguni invasions (8). He also states that there are certain Ma-Shona cave tombs in the Marandelles District which display features analogous to those of Ntlo-Khola (9).

In the majority of cases the huts within rock shelters were built there for security reasons, particularly during the early nineteenth century when the Nguni hordes were ravaging the countryside. The Ba-Sotho and Ba-Venda of to-day still often build their villages on rocky ledges which are difficult of access. With the advent of more settled conditions, however, the general tendency was to build villages at the foot of the cliff. At Inyanga, Ntlo-Khola and in the Ba-Venda country the cave dwellers tended to settle at the foot of the cliff.

The custom of building huts within rock shelters appears to have been quite widespread amongst the Bantu whenever

they settled in areas where such shelters occurred. There is no evidence, however, to indicate that dwellings of this type were the result of culture contacts or that they indicate a common source of origin. The relationships between the different groups, if any, cannot be determined until detailed studies have been made in other areas.

The value of the Ntlo-Khola dwellings lies in the fact that they afford a picture of early Ba-Fokeng house types and of the subsequent changes which they have undergone. Now that the older examples have ceased to be occupied they are fast falling into ruin and this description has been published as a record of these early house types.

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#### REFERENCES

- (1) Arkell, A. J.: "The Pigsty House in the Nuba Mountains," in *Antiquity*, No. 94, 1950, p. 101 and Plate X.
- (2) Walton, James: "South African Peasant Architecture," in *African Studies*, Vol. 7, 1948, p. 140.
- (3) Bullock, Charles: *The Mashona and the Matebele*, 1950, p. 108.
- (4) Ellenberger, D. F.: *History of the Basuto*, 1912, pp. 21-6.
- (5) Lagden, Godfrey: *The Basutos*, 1909, pp. 62 and 378.
- (6) Stuy, Hugh, A.: *The Bavenda*, 1931, p. 7.
- (7) Finch, E. M.: "Pit People of the Inyanga Downs," in *Proc. Rhod. Sci. Ass.*, Vol. XLII, 1949, pp. 40-42.
- (8) Letter to the author written 22nd September, 1950.
- (9) Letter to the author written 17th October, 1950.

# CONTEMPORARY JOURNALS

COMPILED BY UGO TOMASELLI

## APARTMENTS

*Architectural Forum*, May, 1951, pp. 114-129.

Apartments in Boston designed by W. Brown, C. Koch, R. Kennedy, V. de Mars, and Ralph Rapson, exploiting the skip-floor elevator system to provide flats with through ventilation, a river view and outdoor balcony living space for each apartment.

*Architectural Record*, June, 1951, pp. 178-183.

Brentwood Garden Apartments, Los Angeles, California, designed for single people. C. Head, architect. An interesting scheme of repetitive patterns of set backs and single pitch roofs.

## ARCHITECTURE

*Progressive Architecture*, January, 1951.

Design Survey 1951. This issue of *Progressive Architecture* is devoted to a preview of work on the drawing boards planned for construction in the United States in 1951. An analysis of the reports submitted by Architects is given and projects are illustrated.

## CONSTRUCTION

*Progressive Architecture*, February, 1951, p. 101, 103, 105, 107.

Selected Details

- (1) Aluminium Curtain wall for Office Building, Harrison and Abramowitz, Architects.
- (2) Sliding glass doors for Residence, Architect Hugh Stubbins.
- (3) Theatre Ticket Booth, Architect W. Lescaze.
- (4) Sliding Shop ladder, Architect M. Lapidus.

*Progressive Architecture*, March, 1951, p. 107, 109, 111.

- (1) Window Wall (Triple-hung sash) for a Residence. F. Dunn, Architect.
- (2) Roof overhang and Awning box for Shopping Centre. E. Poyer, W. Riddle, associated architects.
- (3) Integrated Ceiling (Lighting, Air Conditioning and Fire Control) for a Branch Bank, Voorhees, Foley and Smith, Architects.

*Progressive Architecture*, April, 1951, p. 107, 109, 111.

- (1) Moveable Louvers for an Office Building. P. Roberts, Architect.
- (2) Theatre Movie Screen, W. Lescaze, Architect.
- (3) Sliding Window for a Residence. R. W. Kennedy, Architect.

## DOMESTIC

*Architectural Forum*, May, 1951, pp. 132-135, 143-149.

- (1) An economical Duplex residence for a housing scheme in Arlington, Va. Charles Goodman & Associates, Architects.
- (2) Two economic houses on one small lot in Dallas, Texas. J. Wilshire & J. Hershel Fisher, Architects.
- (3) Architect Pietro Belluschi designs a flat roofed house magnificently integrated with the site and designed to absorb the full effect of the varying views.

*Architectural Review*, July, 1951, pp. 27-30, 39-42.

- (1) Prefabricated Housing in British Guiana. Architect M. Costello.
- (2) Interior: House at Kingston-on-Thames. Architects Taylor & Green.

*Architectural Record*, May 1951, pp. 93-125.

Mobilization Housing. Building types Study No. 174. Housing designed for permanence. New Towns built for new mills, mines and atomic developments. This study includes examples of post war housing.

*Architectural Record*, May 1951, pp. 140-148.

- (1) Residence in Croton-on-Hudson N.Y. An Informal and open Summer week-end Residence well articulated and well finished. Sanders & Molsin, Architects.
- (2) Residence in Los Angeles, California, designed by H. R. Harrison, Architect. An interesting house built into a hillside.

*Architectural Record*, June, 1951, pp. 162-171.

- (1) A contemporary holiday house designed to explore methods of increasing and organising interior and exterior space. Architects George Nelson.
- (2) House on a small Hilly site in San Francisco. W. Wong, Architect.

*Architectural Forum*, July, 1951, pp. 164-175.

- (1) Architect I. Johansen's own house in New Canaan, Conn., designed with bedroom floor level below natural ground level and living floor level on upper platform.
- (2) Some interesting flat roofed houses, attractively designed and economically built.

*Progressive Architecture*, April, 1951, pp. 75-78.

L-shaped house for a Dartmouth Professor and his family in Hanover, New Hampshire. A. & M. Hunter, Architects.

## HOSPITALS

*Architectural Record*, June, 1951, pp. 151-157.

Veterans Administrative Research Hospital, Chicago, Illinois. Architects Schmidt, Garden & Erickson. A 500-Bed Hospital on a City site, housing 50 Resident Doctors and 90 Nurses.

*Journal R.A.I. of Canada*, April, 1951, pp. 83-115.

Hospitals: This issue is devoted to hospital planning and six hospitals are illustrated by means of plans and photographs.

*Architectural Forum*, July, 1951, pp. 152-157.

Childrens Hospital in Helsinki, Finland. U. Ullberg & E. Linasalmi, Architects.

*Progressive Architecture*, February, 1951, pp. 79-85.

- (1) A 150-Bed General Hospital including separate Nursing Units and an obstetrical section for non-European patients, in Alexandria, Louisiana. Goleman & Raife, Architects.
- (2) Elevator Requirements for the 200-Bed General Hospital by G. M. Hepple.

## HOTELS

*Architectural Record*, May, 1951, pp. 132-135.

Golden Strand Hotel, Miami Beach, Florida. A luxury Resort Hotel consisting of two 5-storey buildings and 16 Villas and its own beach, broadwalks, cabanas and salt water pool. I. Polevitzky, Architect.

*Architectural Record*, May, 1951, pp. 149-152.

Road Camp designed by Richard J. Neutra. A well ordered group of buildings consisting of: dormitories, and dining facilities for road maintenance Crew, Equipment garage and yard and manager's House.

## INDUSTRIAL

*Architectural Forum*, May, 1951, pp. 144-159.

Industrial Building. A profile of the prolific Architectural & Engineering team, Giffels & Vailat, Inc., I. Roselli—producers of buildings for Ford and other big industrial Clients—and a portfolio of their recent work.

*The Architects Journal*, August, 16, 1951, pp. 195-202.

Steel works at Margam, Port Talbot, South Wales. Sir Percy Thomas & Son; Consulting Architects.

## LANDSCAPE ARCHITECTURE

*Progressive Architecture*, March, 1951, pp. 83-87.

Landscape Architecture, Two houses for the families of two brothers on a modest site illustrate harmonious collaboration between Architect and landscape-Architect, and exhibit good integration between Houses and site.



## METHODS AND MATERIALS

*Architectural Forum*, May, 1951, pp. 136-137, 170-185.

- (1) What next in Prefabrication. A forecast from Burnham Kelly's biography of the Industry.
- (2) Architecture in the wind Tunnel. At a Texas Experiment Station, Architect W. Candill pre-tests schoolroom designs for ventilation and lighting efficiency.

*Architectural Record*, May, 1951, pp. 153-161.

- (1) Modular Co-ordination in Frame Houses by James Lendrum.
- (2) Preparing the land for Building: Surface Drainage, Part I, By J. L. Stanton.

## PUBLIC BUILDINGS

*Architectural Forum*, July, 1951, pp. 134-141.

- (1) Childrens Library in Fitchburg, Mass., Architect Carl Koch designs a library unit around an internal court.
- (2) Branch Library in Atlanta designed by Architect Stevens and Wilkinson in Steel, Brick and Glass, radiates atmosphere and cheerfulness.

*Progressive Architecture*, April, 1951, pp. 69-72.

City Hall and Police Station for Newport Beach, California. An informal civic group of buildings for a resort city. Ralph Flewelling and Associates, Architects.

## RESTAURANTS

*The Architects Journal*, August 2, 1951, pp. 138-142.

A Canteen and Club for the Employees at the St. Leonard Street Gas Works, Bramley-by-Bow, London, designed by E. Mayracs.

## SCHOOLS

*Architectural Record*, July, 1951, pp. 7-16.

Primary School at Lansbury Paplar, designed by F. R. S. Yorke, E. Rosenberg, and C. Mardall; Architects. The school occupies an island site and accommodates 320 juniors and 200 infants and is planned on two floors.

*Architectural Record*, May, 1951, pp. 126-131, 136-139.

- (1) University of Minnesota's new Chemical Engineering building. Magney, Tusler & Selter, Architects. Contrasting design factors were flexibility achieved by modular planning and safety by laboratory placement, ventilation and flash proof partitions.
- (2) Gymnasium Building for Priory School, Portsmouth. Andersen & Beckwith, Harkness & Geddes, Associated Architects.

*Architectural Record*, June, 1951, pp. 117-150.

Schools and School Practice. Building Types Study No. 175. Illustrations include Elementary, Twin-Elementary and High Schools.

*Journal R.A.I. of Canada*, May, 1951, pp. 121-148

An issue devoted entirely to Schools, maintenance and materials in Schools, Colour in the Classrooms and School lighting. Plans and Photographs of six different schools are illustrated the most interesting of which is the Vancouver Vocational Institute designed by Architects Sharp & Thompson, Berwick & Pratt.

*Architectural Forum*, July, 1951, pp. 158-163.

- (1) School with controlled daylighting in Seattle. R. Burkhard, Architect.
- (2) Kimberlin Farms School with low 8' 0" ceiling to reduce scale and construction costs. V. Kling, Architect.

*The Architects Journal*, September 13, 1951, pp. 319.

College in Helsinki, Finland, designed by H. Harmio and W. Backman. The scheme includes large common rooms, theatre, large lecture Hall, staff rooms, library, gymnasium, students' restaurant and lecture rooms.

*Progressive Architecture*, February, 1951, pp. 53-58.

College Library: Lawton, Oklahoma. P. Harris, Architect; P. Wilber, Associate.

*Progressive Architecture*, March, 1951, pp. 57-64.

School Administration Building: Seattle, Washington. The scheme provides superintendents offices, lunchroom, auditorium, offices for pupil personnel, child guidance and medical service, plus a suite for the audio-visual division. J. Lister Holmes & Associates, Architects.

## STREET FURNITURE

*Architectural Review*, July, 1951, pp. 51-55.

Street Furniture. A Survey of Street Lighting.

## THEATRES, CONCERT HALLS, Etc.

*Architectural Review*, June, 1951, pp.

The Royal Festival Hall. The Royal Festival Hall on the South Bank has been chosen for this special number of the review because of its three fold importance—

- (1) As the initial instalment of the permanent redevelopment of this area.
- (2) As the only major public building erected in England since the war.
- (3) As a civic building designed in an uncompromisingly modern style in a country where the local authorities are notoriously timid and conservative.

The issue covers the following—

- (a) The Interior and its setting; (b) Planning; (c) Interior spaces; (d) Criticism by J. M. Richards; (e) Main Entrance; (f) Foyers and Meeting Places; (g) Restaurants; (h) Auditorium; (i) Acoustics and Sound Exclusion.

# BOOK REVIEW

## MODEL BUILDING REGULATIONS FOR FARM DAIRY BUILDINGS

SOUTH AFRICAN BUREAU OF STANDARDS

The difficulties experienced by farmers supplying milk to municipal areas where differing regulations for farm dairy buildings exist, and by municipalities who have to administer their regulations separately, have emphasized the need for uniform regulations. Bearing this in mind, the Council of the South African Bureau of Standards, at the request of the Standardizing Committee of the Department of Agriculture, appointed a technical committee to prepare the set of model regulations for farm dairy buildings, which has recently been published.

At the outset, however, it should be pointed out that there is no intention of securing compulsory adoption of these regulations, which cover structural aspects only, and that they have been compiled purely for the assistance and guidance of local authorities in formulating their draft by-laws. Furthermore it should be noted that these regulations have been so

framed that they would not be retroactive. This means that even if they are eventually promulgated as by-laws, those dairy buildings which were previously erected with the sanction of a local authority, would not be affected.

All farm dairy buildings where milk or milk products are produced for human consumption in areas controlled by local authorities, are covered by the regulations. It is required for instance, that every dairy shall consist of at least a cowshed, milkroom, receiving room, utensil wash-up room, change and ablation rooms, a latrine and a boiler room (except where approved electric boilers have been installed). In addition, the rooms themselves are required to conform to certain standards with regard to such essentials as size, doors, floors, walls, water supply, drainage, lighting and ventilation.

In the near future, a code of practice for farm dairy buildings, amplifying the regulations and setting out recommended methods to be followed in the construction of such buildings will be prepared as the next step in a long term programme designed to establish similar sets of model building regulations and codes of practice for silos, reservoirs and other farm structures.

## NOTES AND NEWS

### PROVINCIAL WORK

LIST OF ACCEPTED TENDERS FOR MAJOR PROVINCIAL SERVICES FOR QUARTER ENDING 30th SEPTEMBER, 1951

SERVICE	ARCHITECTS	QUANTITY SURVEYORS	CONTRACTORS	AMOUNT
Erection of new School and Teachers Quarters at Pangala.	Departmental.	Departmental.	Mr. L. M. Badenhorst.	£26,747
Michael Bring High School: Pretoria: Additions.	Mr. N. Eaton.	Messrs. Borckenhagen & Louw.	Messrs. A. S. McKenzie (Ply.) Ltd.	£25,363
Rewlatch School: Rand Central: Erection.	1) Mr. C. Small. 2) Mr. R. H. Graham.	Messrs. Venn & Milford.	Messrs. S. J. Eloff & Allman (Ply.) Ltd.	£21,368
Pretoria Gardens School: Erection.	1) Messrs. T. N. Duncan & Partners. 2) Mr. W. G. Whyte.	Departmental.	Messrs. R. M. Boukontrakteurs (Edms.) Bpk.	£31,450
Coronationville Junior Coloured School: Erection.	Messrs. Janker & Poseman.	Mr. H. Muller.	Mr. R. Wallace.	£23,500
Riverview Primary School: Erection.	Departmental.	Departmental.	Messrs. H. L. v. Slingerland & Co. (Ply.) Ltd.	£22,188
Erection of School at Bredell Agricultural Holdings.	Messrs. Isaacs & Karp.	Messrs. McIntosh & Bowie.	Messrs. Atomic Construction Co. (Ply.) Ltd.	£27,475
Volksrust Pioneer School Hostel Additions.	Mr. W. Wagner.	Mr. J. P. Meintjes.	Messrs. Atomic Construction Co. (Ply.) Ltd.	£54,995

#### CHANGE OF ADDRESS:

Mr. J. J. van Niftrik, M.I.A., has moved his offices to 64 High Court Building, 15 Joubert Street, Johannesburg. Phone 22-2643. P.O. Box 444.

Mr. B. R. H. Knuppe, M.I.A., commenced practice on his own account in August, 1951. His new address is: 311, S.A. Mutual Buildings, Church Street, Pietermaritzburg. Phone 4929.

#### M.I.T. RESEARCH SCHOLARSHIPS OFFERED

Two South Africans will be invited to spend several months next year at the Massachusetts Institute of Technology as guests of the Institute's student body. This will be the third year the South Africans have participated in the programme.

They will be among about 80 from a score of countries who will attend the fourth annual M.I.T. "Foreign Students Summer Project," to be held at Cambridge, Massachusetts, from June 2 to September 12, 1952.

The announcement that South Africa will be asked to participate in the 1952 project was made in Pretoria by the South African Committee on Study and Training in the United States. Dr. M. H. de Kock, Governor

of the Reserve Bank, is Chairman of the Committee. Dr. P. J. du Toit, Deputy-President of the Council for Scientific and Industrial Research, is the Committee's Vice Chairman.

Candidates for invitation must be graduates in one of the fields of science or in engineering or architecture, with at least two years experience since graduation in industry, research or teaching. The 1952 project will be designed for participants who have a specific purpose in a research project or a definite investigation in their field of activity. The upper age limit is 32 years. Women are eligible.

Invitees must finance their travel to and from the United States, but all their normal expenses within the United States will be met by funds raised by the M.I.T. student body. In the event that a student is unable to meet all travel expenses to and from the United States, it is possible that the Committee may be able to arrange partial assistance.

Additional information and application forms can be obtained from the Public Affairs Officer, American Embassy, Pretoria. The closing date for receipt of applications is 25 January, 1952.

#### SITUATION WANTED

Architect B.Arch. (C.T.), A.R.I.B.A., M.I.A. — 27, unmarried, seeks position in firm of contemporary architects, preferably engaged in industrial domestic design—Cape Town, Durban or Johannesburg. 21 Months experience (general and housing layout) with leading architects in London and Copenhagen. Since qualifying. Returning Cape Town December 27. Replies to Editor.

This is  
one job  
we haven't  
done... yet!

We've supplied scaffolding for an intriguing variety of enterprises since we came to South Africa but (to the best of our knowledge) we've never been approached about scaffolding for dressing a Christmas tree. And we're only mentioning it now as an excuse for wishing you joy during the Christmas season and peace and prosperity during 1952! But if you find that scaffolding would be of assistance in adding the crowning touch to your Christmas tree—do let us know. We'd be delighted to oblige!



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