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Photograph : Harry Lotz

## PAN AFRICA HOUSE JOHANNESBURG

A CITY BUILDING WITH SHOPS, SHOWROOMS, OFFICES AND PROFESSIONAL SUITES

HARRIS AND FELS, M.M.I.A., ARCHITECTS

•

#### PROBLEM

The provision of economical shop, shawroom and office accommodation confronted the Architects with a number of problems due to the difficult conditions prevailing at the time. Some of these were Building Control, shortages of steel, cement, and glass, as well as the unsettled labour position

#### SITE

The site, 200 ft. long and 50 ft. deep, fronting on to Bree, Troye and Jeppe Streets, is situated some distance from the business heart of Johannesburg.

#### PLANNING

The planning is essentially simple and straightforward. The entrance hall and vertical transport is centrally situated to provide the most direct circulation along a wide internal corridor serving a double row of offices.

Toilets have been placed on each side of the lift lobby and fire escapes at each end of the corridor. The Caretaker's flat on the roof controls the entrance to the servants' quarters.

#### **ACCOMMODATION**

The ground floor consists of ten shops, each having a basement accessible from the shop. The first floor is devoted to showrooms and owing to these units being larger than the offices above, the ceiling height is greater. There are seven

typical floors of thirty offices each, and these have been subdivided to suit the diverse requirements of the tenants. During the course of construction the problem of services was complicated by the requirements of dentists, doctors and radiologists, necessitating various adjustments to the drainage and electrical systems.

#### **FEATURES**

In order to make working conditions as comfortable as possible, it was decided to protect the long East Elevation from the sun and driving rain. This was achieved by the use of concrete hoods projecting 3 feet at window head level. This has proved most satisfactory in practice. To eliminate unsightly tramway and street lighting standards along the Troye Street elevation, hook bolts were provided at first floor level, and with the co-operation of the Municipal departments concerned, all existing poles were removed, and overhead wires suspended from the building. A noteworthy feature is the use of exfoliated vermiculite blocks for partition walls between affices. This reduced the cost of steel reinforcement to a considerable extent.

#### GENERAL

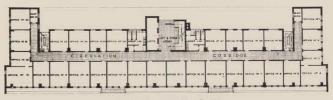
In order to achieve the object of providing economical accommodation, inexpensive, maintenance-free materials such as facebricks and plaster were used externally, while internally it was

PAT AFRICA HOUSE

The Main Entrance looking towards the stairs.



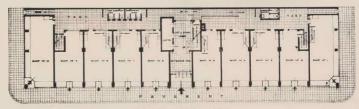
PLAN SHOWING SUBDIVISION OF OFFICES TO SUIT TENANTS



TYPICAL FLOOR PLAN



FIRST FLOOR SHOWROOMS



GROUND FLOOR PLAN

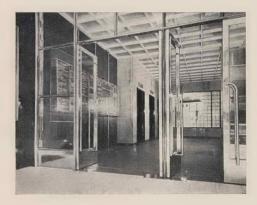


considered desirable to use more expensive finishes to reduce maintenance costs. Colourful asphalte tiles were used on all floors and introduce a note of brightness into the building. All walls throughout are oil painted, while in the corridors a heavy, marble powder plastic has proved itself an excellent finish, capable of standing up to any amount of rough treatment whilst retaining its attractive properties.

The building is equipped with three Waygood-Otis lifts, is centrally heated and has a hot water supply to all basins and sinks. The building is lit throughout with fluorescent lights. The

entrance hall is bright and colourful. The floor is covered in green rubber tiles and contrasts with the Indian Red lift doors and fluted name board wall. Fluorescent light strips behind a ceiling of glass supplement the natural light from a glass brick wall.

The building is let at the comparatively low rental of ninepence per sq. ft. for office space and has proved of immense value to hundreds of ex-servicemen who have been provided with premises to carry on their occupations.



Details of the Main Entrance Hall. At left is seen a view showing the name board and the lifts. Below is a view of the main stairs. Natural lighting from the glass brick panel is supplemented by fluorescent lights above the glass ceiling. Floor is in green rubber.



Photography: Alfred Davis Studio

# FESTIVAL OF BRITAIN, 1951



The two-level entrance from Waterlao station and Underground. The roof is suspended from laminated wood arches. Gordon Tail, F.R.I.B.A., Architect.

In the November issue of the Record we discussed the Festival of Britain in general terms and gave a resumé of how the story would be told. In this issue more details are given on the actual Exhibition buildings built on the 30-acre site on the south bank of the Thames, bounded by the River Thames, York Road, County Hall and Waterloo Bridge.

The work has involved the immediate clearance of the whole of the site with the exception of the old Shot Tower; the extension of the river wall from the Northern end of the County Holl to Waterloo Bridge, as indicated on the site plan; the improvement of Belvedere Road; and the erection of the Concert Hall on a site immediately to the North-East of Hungerford Bridge.

The cost of the re-development is calculated at approximately  $\mathfrak{L}2,000,000$ .

The re-planning of the South Bank of the Thames on nable and dignified lines and in keeping with the Victoria Embankment on the opposite side has been projected by the Council for more than 20 years.

#### UPSTREAM SECTION

 Waterloo Entrance. Designed by Gordon Tait, F.R.I.B.A. (Sir John Burnett, Tait and Partners).

This building comprises ground, mezzanine and first floors planned to accommodate the escalator head from Waterloo Underground Station. The ground floor is mainly devoted to turnstiles and entrance facilities, including Police, First-Aid and management offices, while the first floor links up with Waterloo Station across the York Road footbridge at high level. The building is of a light frame construction, part reinforced concrete, part steel, the roof being suspended from laminated wood arches which are themselves an exhibit of the technique of laminated timber construction. The walls of the building generally will be covered with sprayed cement. Overall height

is approximately 60ft, and the building on plan measures approximately 160ft, x 120ft.

(a) Service and Administrative Block. Designed by the Architects' Co-operative Partnership.

A corridor type of building about 350ft, long, 30ft, wide and 12ft, high. The structural system is partly of breeze blocks with a small amount of steel, and the filling includes plywood panels and corrugated asbestas. It houses an information centre, Post Office, Telegraph Office, left luggage, etc., and at one end a small restaurant. Above this runs a decorative screen approximately 60ft, high, below which, built over decorative pools, are three information kiosks approached by footbridges from the entrance courtyard.

7. (b) Natural Resources. Designed by the Architects' Co-operative partnership.

This building is partly below ground level, covers an area of 80 ft. square and is surmounted by a tetrahedron of concrete slab construction which rises above the ground at a height of some 70 ft.

16. (c) A block of administration offices partly encircles the Chichely Street entrance courtyard. Included also in this section is the ceremonial entrance which is of temporary prefabricated construction.

6. Country. Designed by Brian O'Rorke, F.R.I.B.A.

A Dutch Barn type of building, approximately 50ft. high, measuring on plan 100ft. x 250ft., and placed in a garden setting. It has a first floor gallery and is covered externally with carrugated asbestos, canvas and weather boarding. There are also decorative panels of masonry.

8. Industry. Designed by G. Grenfell Baines, F.R.I.B.A., in collaboration with H. J. Reisenberg

A tubular steel framed building about 50ft, high and approximately 300ft, x 100ft, on plan. It is covered externally with



General impression of the main concourse seen from the entrance shown at left. The vertical feature in background was designed by Powell and Moya, Architects.

glass, corrugated asbestos, and brick panels. There is an internal gallery from which the ground floor exhibition hall can be viewed and which itself accommodates exhibits.

10. Sea and Ships. Designed by Basil Spence, F.R.I.B A.

The structural system consists of a series of Portal Frames of light steel construction forming an enclosure approximately 50ft, wide, 40ft, high and 300ft, long. In addition there is a section same 50ft, away from the main block on the river front and linked with it by a bridge. This bridge is about 12ft, above ground level and overlooks the river pier. There is also an internal gallery to the main block at approximately the same height. The main floor of the building is at different levels to accommodate the different exhibits in the most effective setting. Cladding will be part aluminium and asbestos sheeting and part canvas.

13. Bailey Bridge and Restaurant, Designed by M. Block.

This large two-storey restaurant is placed in the heart of the Exhibition concourse and overlooks the River Thames, and forms the South Bank Bridge Head.

The Boiley Bridge is decorated with revolving wind operated pylans and other features designed and placed so as not to

obscure the bridge itself, which is being erected by the Royal Engineers as an outstanding example of British engineering achievement.

12. Transport. Designed by Messrs. Arcon.

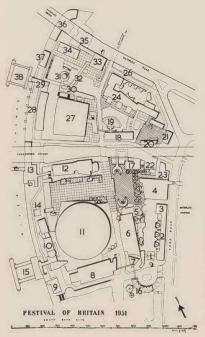
A steel framed building approximately 250ft long and between 40ft, and 60ft, high, with an open ground floor treatment. It is clad in asbestos sheeting and glazing, and includes three galleries at different heights.

17. The People of Britain. Designed by H. T. Cadbury-Brown, A.R.I.B.A.

The entrance pierces a cone-shaped canopy into some existing railway bridge vaults which house the introductory theme. The building itself is of light steel frome left exposed with brick panel walls standing free of steel work. The exhibits are seen from platforms and ramps at different levels.

 The Land of Britain. Designed by H. T. Cadbury-Brown, A.R.I.B.A.

This is approached through a similar cone-shape canopy direct into the building, which rises out of Earth and Rock Formations surrounding it. (These two structures compose the main



#### LEGEND

- 1. Canopy over entrance
- 2. Information, Post Office, etc.
- . Restaurant
- 4. Entrance from Waterlao Station, Esca-
- 5. The Land of Britain
- 6. Country
- 7. Natural Resources
- . Power and Production
- 0 ....
- 10. Sea and Ships
- 11. Dome of Discovery
- 2. Transport
- 3. Restaurant and Entrance from Balley Bridge
- 14. Vertical Feature
- 15. Pier
- 6. Administration and Entrance from Chicheley Street
- 17. The People of Britain
- 18. Character and Tradition

- 19. Cafe
- 20. Film and Television
- 21. Telecinoma
- 22. Locomotive Exhibit
- 23. Administration
- 24. Homes and Gardens
- 26. Administration and Stares
- 27. L.C.C. Concert Hail
- 28. Seaside
- 29. Restaurant
- 30. 1851 Pavilion
- 31. The Shot Tower
- 32. Bridge to L.C.C. Concert Hall
- 33. Entrance from Waterloo Bridge New Schools Exhibit below
  - 4. Cafe
- 15. Health
- 6. Restaurant
- 37. Sport
- 38. Pier

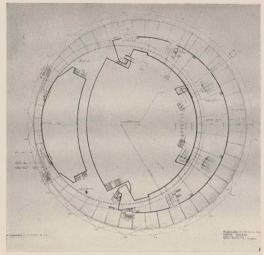


Elevation to Concourse

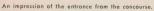
Plan at Upper Level

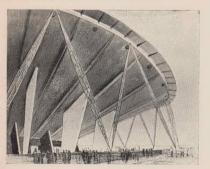
## THE DOME OF DISCOVERY

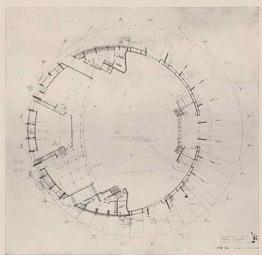
Ralph Tubbs, A.R.I.B.A., Architect.



Plan at Lower Level









The Bailey Bridge Restaurant (13) in the heart of the concourse and overlooking the river. Misha Black, O.B.E., Architect.

entrances to the narratives of The Land of Britain and The People of Britain.)

11. Dome of Discovery. Designed by Ralph Tubbs, A.R.I.B.A.

This dome, 365ft. in diameter, is the largest dome in the world. It is supported on steel struts and will be sheathed externally with aluminium. The moin dimensions are 45ft. to eaves and 93ft, to the opex of the dome. There will be internal galleries at varying heights.

#### DOWNSTREAM SECTION

 Character and Tradition. Designed by R. Y. Goodden, A.R.I.B.A., and R. D. Russell, F.S.I.A.

A simple rectangular structure with a gallery along one of the long sides and stairs at each end. Three-quarters of the long wall looking on to the Exhibition courtyard is glazed from ground to eaves level. The roof is curved in section and the walls are finished with cement rendering sprayed on to expanded metal lathing.

Attached to this building is a small open-air restaurant with a canvas roof supported by decorative poles.

Introductory Pavilion and Telecinema. Designed by Wells Coates, F.R.I.B.A.

20 (a). Introductory Pavilion. This is a rectangular building on two floors, about a third of the ground floor being open to serve as an external passageway from under Hungerford Bridge. The building will be of prefabricated construction and artificially lift.

21 (b). Telecinema. This building makes use of the existing basements of demalished properties, and the ground floor auditorium level is thus about 9ft. below natural ground level. Above this reinforced concrete basement "tank" is a light steel superstructure spanned by standard size steel roof and trusses. The balcony and projection equipment sections are constructed as a box girder frame. As this building is adjacent to the railway bridge, protection against noise is an important design factor. The walls of the main hall are covered with a 9ft. quilt hung from the steel framework composed of soundproof material and waterproof mixes, etc., held in position by light alloy frames; in addition the inside of the auditorium will have

acoustic treatment giving an overall wall thickness of 1ft. 6in The staircase-foyer block and screen block components will be of prefabricated construction.

The planning of the Telecinema has been arranged to overcome the difficult technical problems of combining the short throw of the television projectors with the narmal cinema requirements.

 The Creche and Family Pavilion. Designed by Denis Clarke Hall, F.R.I.B.A.

(a) The Crēche. The Crēche is designed to take 250 children between the ages of 5—7 years. It includes reception, play-rooms, a well-equipped open-air play space for infants and juniors, together with a rest room, milk bar, medical section, miniature cinema and administration block. The structure is composed of light tubular metal framing, clad in asbestos, wall board, canvas, etc.

(b) The Family Pavilion. A rectangular-shaped building having a light steel frame structure, the walls and roof being formed of stretched canvas panels.

Homes and Gardens. Designed by B. Katz, F.S.I.A., and R. Vaughan, A.R.I.B.A.

A large covered area about 20ft, high, constructed of a light tubular steel scaffold frame covered with asbestos sheeting. Canvas, glazing, and decorative stone wall panels are extensively used.

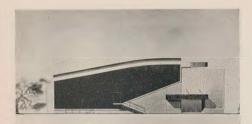
 Administration and Canteen. Designed by D. Mills, F.R.I.B.A.

This will be a two- or three-storey building constructed above the old Waterloo Bridge Road Vaults. In some of the vaults themselves will be workshops, stores and management services. The building above the vaults is planned with a balcony approach made gay with flowers and awnings. There will be a decorative screen to link this building with the Telecinema, along the perimeter of the Exhibition site.

Waterloo Bridge Entrance, Dockside Cafe, Riverside Restaurant and Sports. Designed by Maxwell Fry and Jane Drew, FF.R.I.B.A.

33 (a). Waterloo Bridge Entrance. This consists of turnstiles, entrances and exits from Waterloo Bridge Road, with stairs and ramps down to ground level some 30ft, below Waterloo Bridge Road, to be constructed mainly in reinforced concrete with light metal and plastic superstructure. The tower adjacent to the entrance consists of open tubular framework with decorative features and will house a glass-sided lift serving a viewing platform 80ft above ground level. Under the building will be a series of spaces devoted to display on "Schools." Same of the vaults under Waterloo Bridge Road will also be used for this and for the display of "Health and Welfare."

34 (b) Dockside Cafe. This is placed overlooking the pools which will contain river craft, model boats, etc. It will be in



Elevation of the Telecinema (21), for televisian and cinema projection.

Designed by Wells Coates, O.B.E., A.R.I.B.A., Architect.



Model of the Sea and Ships section (10) on the river side of the Dome of Discovery. Bosil Spence, O.B.E., F.R.I.B.A., Architect.



An artist's impression showing a general view across the river end of the main concourse, with a support of the vertical feature in the fareground and the Sea and Ships section as well as the Dame of Discovery in the background.



Model of the Waterloo Bridge entrance (33) showing the riverside restaurant (36) on the new embankment. Jane Drew and Maxwell Fry. FF.R.I.B.A., Architects. Also seen is the cafe (34), the Shot Tower (31), and the bridge (32) leading to the L.C.C. Concert Holl.

light prefabricated construction openly planned and predominantly canvas covered.

36 (c). Riverside Restaurant. This will follow the curved wall of the river embankment under Waterloo Bridge. Above the Embankment wall it will have an all glass front. It will be a prefabricated structure with canvas and plaster covering, designed to permit of quick erection in the limited time available between the completion of the Embankment wall and the opening date of the Exhibition.

37 (d). Sports Pavilion. This will be an openly planned rectangular structure with a gallery. It will also be a light prefabricated construction mainly canvas covered.

 Shot Tower. Designed by Hugh Casson, F.R.I.B.A., and James Gardner, R.D.I.

The Shot Tower itself is to be surmounted by a lighthouse and radio telescope and a decorative balcony will be erected around its base. Between the Shot Tower and the Sports Povilion will be a grass arena for displays of physical culture and various sports. Two decorative pools, one constructed within the existing barge dock on the site, and designed for the display of model yachts and river craft, complete the boundaries of this zone.

28. Seaside. Designed by Eric Brown, L.R.I.B.A., and Peter Chamberlain, A.R.I.B.A.

An open-air display situated along the Embankment terrace between the L.C.C. Concert Hall and the river. The main display is arranged below a canvas velarium parallel to the long side of the Concert Hall terrace and slung from lattice steel masts carrying "look-out" points overhanging the river. A bridge containing a bar will overlook the approaches to one of the two main river landing stages.

27. Concert Hall. Architect to County Council, R. H. Matthew.

The Concert Hall is sited between Hungerford Bridge and Waterloo Bridge, and in order to take advantage of the views of the river the main foyer of the Concert Hall is raised well above the existing South Bank level. It will be possible to walk from the reception foyer, through the restaurants, out on to the Terrace and into the gordens. A striking feature as seen from the river is the great window which will provide magnificent views from the restaurants as well as the foyer. General Planning and Design.

The main concert hall will provide seating accommodation for 2,900 in two main iters, consisting of the main floor of the auditorium ramped to provide adequate site lines, side boxes and a gallery. In addition, the choir seating for approximately 250 will be available to the public and there is standing space in the side galleries for a further 300, thus giving a total accommodation of 3,450. A small hall for chamber music, cinemo projection, amateur theatricals, etc., is planned, with seating accommodation for 750. Further provisions are made for large reception fovers for dining and denoing, large public



Model of the Seaside Section (28) or the river frontage, with the L.C.C. Concert Hall and Shot Tower behind. Architects, Eric Brown, L.R.I.B.A., and Peter Chamberlain, A.R.I.B.A.

restaurants opening on to terraces and gardens created by the building of the new river wall, a two-storey exhibition gallery for art displays, two large meeting rooms which may be used separately or in conjunction with the exhibition gallery.

Most of the components can be operated as self-contained units having their own special entrances, exits, lifts and lavatories.



## INCIDENTALLY

#### A COLUMN BY GILBERT HERBERT

#### FALLING LEAVES

By now, Spring must have come to South Africa, and the bright young leaves, so fresh and green on dork brown branches, must already be maturing into summer foliage; but, North of the Equator, it is late autumn, and summer's greens have turned to autumn's reds and golds. Here, in New England, Fall brings an unbelievable beauty to the landscape. Up north, it is true, in the White Mountains of New Hampshire and the Green Mountains of Vermant, the leaves are falling fast, and bare branches form a winter tracery against the pale blue sky; but farther south, in warmer Massachusetts and Connecticut, glorious polychrome is the order of the day; maples turn to blazing red and oaks a lustrous yellow.

Ah, April in Paris, to be sure, and England in the spring! but why no songs of Connecticut in the Fall? Where is the troubadour to lift up his voice for outumn's beauty, for the still warm sun, and the trees burning bright.

#### OPERATION LEICA

On a fine Fall day, a convoy of five cars moves out of Cambridge, Massachusetts, as the sun tentatively pokes its head over the eastern horizon. The cars race swiftly southward, southward across Massachusetts, southward along the treelined, colour-drenched Merritt Parkway, five cars nose-to-tail swiftly speeding through the glory that is Connecticut in the Fall. And then, at New Canaan, the cars leave the Parkway and drive through the little town, up the main street, past the bank and the service station and the movie-house and the drug store, out into a long, winding lane, and down a private driveway, to pull up in a fine co-ordinated movement before a house. In a flash a man is out of the leading car, and hastens to the door of the house, while, from the remaining cars some 25 figures emerge and surround the building, silently, efficiently. As their leader parleys at the door, they take up strategic positions and aim carefully. The leader turns, nods his head curtly, significantly: as one, twenty-five fingers move, twenty-five shutters click—the Harvard Graduate Class has begun its New Canaan house tour.

In a way, it is a little disturbing to watch the thoroughness with which American architectural students photograph a house that they are visiting. Disturbing?—it is downright frightening. They move in like a ravenous horde of locusts sighting a prize crop of mielies; the sound of the owner's "hullo" has hardly impinged upon their ears before cameras are unslung and a barrage of shots is hurled at the house. I don't know how the owner feels about all this, but I swear I could almost see the poor house cowering under this relentless and almost indecent prying by innumerable lenses. For the first ten minutes the

only sounds to be heard are the click-click of camera releases, and certain terms of abuse and well-chosen invective as thoughtless people insist on walking past an open shutter.

To aim and click, these enthusiasts will lean perilously out of upper windows and balance precariously on balcany balustrades; they will stand on cairns of boulders and on crumbling cliff-edges. If I were to see someone hanging battlike by his toes from the rafters I would not be in the least surprised. After a week-end of photomania, I have come to the conclusion that the architect is God's gift to Eastman-Kodak, the directors of which company wish to announce that for the Kodachrome we are about to expend they are truly grateful.

#### PEOPLE WHO LIVE IN GLASS HOUSES SHOULDN'T:

As it happens, this, the first house an our two-day itinerary, is just wide open to an assault of this sort, for it is the Philip Johnson all-glass house which you have probably seen in the Architectural Forum, or in a recent issue of the Review, where it was most adequately presented. From the photographer's point of view it is unique in that it is probably the only house where one can photograph the interior fully without entering the building—although, it is true, reflections are apt to be troublesome.

Everyone seems to have very decided views on glass houses: They are not the sort of thing, apparently, that one can take or unconcernedly let alone. A positive attitude is always evoked, and never one of indifference. Like Toots Shor, who said, "Anything I do, I do to excess," people go to extremes about this house: they are either violently for or violently against. Mr. Philip Johnson, the architect and owner, is naturally and most decidedly for. While I would not categorically state that he is alone in this opinion, it would seem to me that the majority opinion is equally firmly against.

It is extraordinarily difficult to be objective about this house. I can argue logically to myself that opaque screens are used when privacy is needed, and transparent screens for light and view; that, as this house, set amongst the trees, is far from the road, and in sight of none of its neighbours, privacy is not a consideration; that, on the other hand view most certainly is a cansideration, with the glorious Connecticut landscape spreading away from the house on all four sides, an ever-changing picture from season to season. Therefore, I tell myself, what could be more logical than a house designed completely for view, that is, an all-glass house.

So much for the logical, objective approach: but, all the time I am trying to convince myself of the good sense of the scheme, samething—perhaps the hangover of a troglodyte ancestry—wells up within me and urges me to reject this surfeit

of transparency. I long for a sense of shelter, of enclosure. I yearn for the opaque screen of privacy, not only because I do not want the world to peer in at my window, but because I do not wish to peer out interminably at the world; no one is so extroverted as to be forever looking outward. Although I find much in the all-glass house that indicates architectural virtuosity, I find nothing that indicates Home The very use of this word condemns me as hopelessly old-fashioned, for the canception of the house as a home appears to be much out of favour these days, except in the women's journals land we all know how sentimental they are!), and my dislike of the Glass House may therefore be just sentimental reaction. Anyhow, though that may well be, I am prepared to leave to Philip Johnson and the Sleeping Beauty their glass caskels: I find them incompatible with Life.

#### NIGHT AND DAY

"Night and day, you are the one,

Only you beneath the moon and under the sun."

Despite Mr. Cole Porter, I would maintain that there is a considerable change in one's attitude at the going down of the sun and with the coming of night. I must say, thinking of the Johnson house which I have been so roundly denouncing, that at night I found myself to a degree accepting that which in the light of day I had so categorically rejected; for the house somehow manages to entrap some of the magic of the moon within its glass walls.

We returned to the house at nightfall, and, in the large living-room, gathered in a circle about Mr. Johnson, as he talked fluently of this and that, of the thorny problem of monumentality, and of the futility of a social approach to architecture. From philosophical aspects he turned to personalities, and talked of his neighbour Marcel Breuer, whose house we were to visit the next day, and of Mies van der Rohe, and of how Mies could drink Walter Gropius under the table and must therefore be, the implication ran, a better architect. And as he talked and the circle listened, I found my-

self listening less and looking more; because something had happened to the room where, earlier in the day, I had felt so uncomfortably exposed. Night had come, and darkness had settled as a curtain outside the four glass walls. Night had come, and darkness had made the outside space finite. To look at the infinite is to be out of scale with life; but when darkness limits visibility, the infinite is replaced by the immediate and the tangible. One is not aware of the endlessness of the heavens, because the upward view is interrupted by the solid roof: horizontally, one can see only to the nearest trees. Suddenly, one realises that the room has become livable. Now an interesting problem arises. If there is an unbroken wall of darkness surrounding the house, the effect would be as uncomfortable, in the opposite extreme, as that of complete exposure. For now we would be in a room with no windows at all. So, with wonderful subtlety, Mr. Johnson has floodlit a few isolated groups of trees at various distances from the house, and these act as windows in the engirdling wall, drawing the eye from inner to outer space. In other words, the room at night does that which it fails to do during the day: namely, to provide a balanced environment incorporating the elements both of seclusion and openness.

#### CANDLELIGHT IN NEW CANAAN

Come, it is time we were leaving—but, before we move on, a last word, and that on the atmosphere of the house at night. To create an effect, a degree of attention has been devoted to lighting problems which normally we come across only in stage designs. Except for one or two low-powered standing lamps, lighting is by candlelight, and the whole room is suffused with a soft worm glow punctuated by a counterpoint of tiny flickering flames, reflected and reflected again in the walls that have now become mirrors. The room shimmers with an animate light. I would say that the soft even lighting is of the quality of the moon, the flickering of the candles the dance of fireflies: but words can never re-create the magic and the wonder of a candlelit room. Really, you must see it for yourselves.

## CONTEMPORARY JOURNALS

#### COMPILATION BY UGO TOMASELLI

#### ARCHITECTURE

Architectural Review- September, 1950, pp. 190-193

Trecents Mechanics, by F. J. Samuely, The Doges Palace in Venice was Ruskin's ideal of a manumental building. Here an expert in construction analyses it from another point of view, showing how its builders arrived by intuition at a perfect solution of the structural problems involved

Progressive Architecture-September, 1950. pp. 57-71

The Architect and his Community, Case Study of the Firm Naramare, Bain, Brady and Johanson, Architects, Seattle, Washington, which has been responsible for over 60 million dollars' worth of commissions during the past five years. Examples of work illustrated are:

- (1) A public fieldhause designed to serve a population of 25,000. The requirements comprised: A combination auditorium-gymnasium with stage and complete scenery loft; lockers and showers for 134 boys and lackers and showers for 77 girls; a craft room; three social rooms to be used as community club meeting rooms; two kitchens: a control desk; two affices and storage rooms.
- (2) Health Sciences Building, University of Washington, Seattle, A structure to house teaching facilities for Schools of Medicine, Dentistry and Nursing.
- (3) Architect's office building, Seattle. The firm's own offices on a sloping site with draughting room for 20 boards; business affices having three desks; reception room; conference room to seat 10; 4 private offices for the partners; starage; tailets and utility

Architectural Forum-July, 1950, pp. 62-79.

Stores, What makes a 1940 store obsolete and uneconomic to-day, An analysis of the interplay of changing economic factors and new mechanical equipment which are shaping the New Store-illustrated with examples of the country's best new stores. This study, showing how glass, air conditioning, high intensity lighting, better accoustics, new fixturing, and mare prosperous customers have re-shaped the modern store, is arranged by V. Gruen, M. Ketchum, M. Lapidus, K. Welch and D. Schwartzman.

Architectural Forum-August, 1950, pp. 106-121

Suburban Retail Districts.

- (1) Eastland Plaza. The J. L. Hudson Company builds 103-acre development South of Detroit. The research and design of this scheme. which includes shops, department store, a theatre, and parking for 6,000 cars, has been carried out by Architects Gruen and Krummeck. (2) Allied Stores, Northgate, outside Seattle, builds 650,000 square
- feet of store space on 50 acres. John Graham, architect. (3) Princeton. Ketchum, Gina and Sharp design 205,000 square feet of

Progressive Architecture-July, 1950, pp. 67-72.

Administration and Engineering Building for the Standard Oil Com pany, Indiana, Holabird and Root and Burgee and Associates, architects.

Progressive Architecture—August, 1950, pp. 47—50. Showroom: Los Angeles, California. C. Eames, designer. A simple rectangular room with screens to subdivide the large internal volume.

Architectural Forum-June, 1950, pp. 84-89.

Office Building: A preview of Lever Bros.' miniature Manhattan skyscraper by Architects Skidmore, Owings and Merrill-a tall narrow glozed office unit above an open-air ground floor and a Garden Mezzanine.

#### CONSTRUCTION

Progressive Architecture-May, 1950, pp. 105, 109, 111, 113.

Selected details:-

- (1) Theatre: Movie Screen. Schlanger, Hoffberg, Reisner and Urbahn, architects.
- (2) Sliding Glass Door, Richard J. Neutra, architect.
- (3) Bus Shelter: Engineering Department, Eastman Kodak Company.
- (4) Protective Shutters, Igor Polevitzky, architect.

Progressive Architecture-July, 1950, pp. 103, 105, 107, 111.

Selected details-

- (1) Bank: Wall Counter, Conrad, Hays, Simpson and Ruth, architects.
- (2) Triangular Staircase, Hornbostel and Bennett, architects,
- (3) Window Wall, Holabird and Root and Burgee, associate architects.

(4) Sliding Glass Doors, I. Polevitzky, architect. Progressive Architecture-August, 1950, pp. 75, 77, 79, 97, 99.

Selected Details:-

(1) Wall Brackets for Department Store, H. Heatley and Ketchum, Gina and Sharp, associated architects.

(2) Record Listening Booth for a Department Store, Heatley and

Kelchum, Gina and Sharp, associated architects. (3) Record Listening Counter and Starage Unit, Heatley and Ketchum,

Gina and Sharp, associated architects.

Progressive Architecture-September, 1950, pp. 107, 109, 111, 113. Selected details-

(1) Sliding Sash Window with Screen, C. Hornbostel, architect.

(2) Exterior R.C. Stairs. Ketchum, Gina and Sharp, architects.

(3) Suspended 2-way Kitchen Cabinet, J. P. Trouchaud, designer, (4) Ceiling Lighting for Factory. The Austin Co., engineers.

#### DOMESTIC

Architectural Forum-July, 1950, pp. 96-101,

(1) A re-modelled dairy building on a Long Island pond by architect Jase Sert becomes a calaurful suburban house.

(2) A Y-shaped plan by Architect H. Jackson separates the living, sleeping and service companents into divergent wings in this house in New York.

Architectural Forum-August, 1950, pp. 84-95.

(1) Phillip Johnson uses water-floored Patio, fed by artificial rain, in a New York guest house and art gallery.

(2) A Palm Springs desert house built of simple materials uses pools inside and outside to give coal appearance. Clark and Frey, architects, (3) A Double Quansel house on a hillside site near Knoxville by James Fitzgibbons shows imaginative application of this prefabricated framina material.

Progressive Architecture-May, 1950, pp. 87-89.

House: Fresno, California. Henry Hill, designer. An economical house for a couple on a flat site.

Progressive Architecture-August, 1950, pp. 51-69.

Houses: A critique,

(1) House on a small 60ft, x 100ft, site in Carmel, California, Gordon

(2) House for a family of four on a half-acre site in Austin, Texas. A. Fehr and C. Grainger, architects.

(3) Home in Massachusetts for a couple, Iwa sans and a mather-in-law on a wooded hillside site, Hugh Stubbins, Jnr., architect.

(4) A large winter vacation home for a woman who entertains in relays her seven married children and their friends on a beach front site in Sarasota, Florida. Twitchell and Rudolph, architects,

Architectural Review-September, 1950, pp. 152-160, 194-196.

(1) House at New Canaan, Connecticut, Architect, Philip Johnson. The latest development in skin and bones architecture is Philip Johnson's own glass house.

(2) Summer house at Arild, Arne Jacobsen, architect.

Progressive Architecture-September, 1950, pp. 85-88.

A small house on a narrow 72ft, lot in Denver, Colorado, V. Hornbein, architect.

Architectural Forum-June, 1950, pp. 112-127.

Houses: The architects' collaborative experiment in modern house design in Six Moon Hill, Lexington, Mass., introducing new construction ideas. Forum illustrates a portfolio of seven of the most interesting houses in this scheme, as well as a larger house in Belmont. Mass., by the same architects.

#### GOVERNMENT

Architectural Review-September, 1950, pp. 182-186. Parliament Building at Bonn. Architect, Hans Schwippert.

#### HOSPITALS

Architectural Forum-July, 1950, pp. 90-95.

A 600-bed General Hospital in Arkansas by Erhart, Eichenbaum and Rauch and Edward D. Stone, architects. The outsanding features of this medical centre are:

(1) A triangular layout of nursing units.

(2) A new nurses-service unit

(3) A corridor arrangement which gives all three nursing units on a floor direct access to the service wing without passing through each

(4) Daylighted carridars giving cross ventilation for all rooms.

(5) A clinic in which patients and staff traffic never cross. (6) Entrance which divides out-patient and in-patient traffic.

(7) Waiting rooms overlooking garden courts.

Propressive Architecture-May, 1950, pp. 80-82.

Dental Clinic; Bellevue, Washington, J. L. Follett, architect. A clinic comprising two operating rooms, a laboratory, a dark room, recovery, office and waiting room

Architectural Forum-June, 1950, pp. 106-111

A contemporary medical research building in Philadelphia, V. Kling, architect.

#### HOTELS

Progressive Architecture-May, 1950, pp. 83-86.

Hotel: Fort Fairfield, Maine. A 50-room hotel to replace a hotel destrayed by fire.

Alonza Harriman Inc., architects.

Architectural Forum-June, 1950, pp. 90-101

Hotels: a study of planning methods which the experienced hotel architects Holabird and Root and Burgee are using to develop the American type of commercial hotel for adaptation in all parts of the world-notably for Inter-continental Hotels Carp., in Columbia and Venezuela, Examples illustrated --

(1) Tamanaca Hotel has terrace suites and standard rooms in Venezuela.

(2) Del Lago Hotel, Venezuela, 141-raom tropical hotel which varies the typical rooms to suit the needs of travellers in the trapics.

(3) Bogota's modern 400-room downtown hotel provides stores and

parking.

#### HOUSING

Progressive Architecture-May, 1950, pp. 63-76.

four apartment buildings critically analysed by the architects them-

(1) Country Club Apartments: Phoenix, Arizona. Architect, R. Haver. Approximately 100 units required on a five-acre lot comprising 30 ane-bedroom units, 56 two-bedroom units and 8 three-bedroom units.

(2) Hale Manar, Rochester, New York, R. van Alstyne and D. Hershey, architects. The units comprise: two bedroom units and single units.

(3) San Cente Apartments: Santa Manica, California, C. Marston, architect. Sixteen dwellings designed on the duplex system.

(4) 3416 Youkum Boulevard: Houston, Texas, Wilson, Morris and Crain, architects. A group of duplex flats designed about a private court.

#### MATERIALS AND METHODS

Progressive Architecture-May, 1950, pp. 95-99.

Sun Control Melhads: Part 1, by G. Conklin. Progressive Architecture—July, 1950, pp. 65—66, 88—89

(1) What kinds of accounts do you keep? By Ira Meyer.

(2) Radiant Low Voltage Electric Heat, By A. Abernethy and D. Shearer,

Progressive Architecture—August, 1950, pp. 72—80.
Department Store Merchandising Units. This study is concerned with Department-Store fixtures, display and merchandising units designed for economy of construction, minimum maintenance, standardisation and interchangeability.

Progressive Architecture-September, 1950, pp. 72

(1) Office Practice: Plotting the Sun, by John Rannells.

(2) Interior Wall Materials for Residences, by Graff Canklin.

#### RELIGIOUS

Architectural Forum-July, 1950, pp. 80-89.

Churches:

(1) Christ Church in Minneapolis. An unastentatious building of contemporary design illustrating subtle detailing and a highly scientific approach to accoustics, lighting and heating. This church, designed in the office of Architects Sagrinen, Sagrinen and Associates, is the last completed work of the late Eliel Sagrinen.

(2) University of Oklahama Chapel by Architect Bruce Goff, Diametrically different from Sourinen's conventional church, this non-denaminotional religious centre is a concept of crystalline church design interpreted in diamond-shaped facets of rose-coloured glass set into a fight metal frame.

#### SCHOOLS

Architectural Forum-July, 1950, pp. 110-113.

A contemporary new school wing built on to an old high school of classic design in Phoenix, Arizona. Architects Guirey and Jones have experimented in daylight control in this building. Vertical concrete fins which support the building are bent against the hat southern sun to overcome difficult orientation.

Progressive Architecture-July, 1950, pp. 51-66

Elementary Schools: Critique.

(1) An elementary school for 600 children on a 20-acre site, including aym-auditarium and health facilities, Long and Thorshoy, Inc., architects,

(2) Silver Spring, Maryland. A minimum cost school on a wooded slaping site comprising 7 classrooms, grade room, kindergarten and an all-purpose roam, R. Senseman, architect.

(3) A grade school for 400 pupils, plus a temporary church on a 19acre hill-top sile in Michigan. C. Hannan, architect.

(4) A 5-classroom and kindergarlen addition to an existing two-storey school in Peterbaraugh, Ontaria, John Parkin Associates, architects.

Architectural Forum-June, 1950, pp. 102-105.

Parochial School in Texas comprising five classrooms, a chapel, some auxiliary rooms, office and rectory's flat. D. Barthelme and Associates, architects.

#### THEATRES

Progressive Architecture-May, 1950, pp. 59-62.

Theatre: New York, Edward Stone, orchitect; K. Holzinger and R. Johnson, associates, An old legitimale theatre re-modelled and extended to show feature movies. The entrance and exterior were handled boildy to compete with neighbouring Times Square attractions. The capacity of the theatre is 713 seats.

#### TOWN PLANNING AND LANDSCAPE DESIGN

Architectural Forum-August, 1950, pp. 98-105.

Chicago Re-developes, As a cure to her South Side slums, Chicago considers a new pattern of private enterprise slum clearance, involving 1,400 apartments, and covering seven square miles. Other units involved are a shapping centre, parking underground for cars and future elementary school. Skidmore, Owings and Merrill, architects,

#### TRANSPORT

Progressive Architecture, September, 1950, pp. 75-84.

Automobile Sales and Service Buildings. Three projects are included in this critique:-

(1) Klein Motors Inc., New Orleans, Louisiana. Curtis and Davis, architects. Three basic requirements were required for this project. (a) showroom and space for the sales force, (b) parts department, sales and storage, (c) service department,

(2) Gruen and Krummech Associates, architects, design a unit in Maple wood, Missouri, to serve five separate but related functions. (a) New car sales and display; (b) Sale of parts and accessories; (c) Service and

repairs; (d) Sale of used cars; (e) Petrol service station.

(3) Long term alteration programme in Long Island City, New York, incorporating new main showrooms and their co-ordination with the parts department immediately to the rear, Katz, Waisman, Blumenkrantz, Stein, and Weber, associated architects.

## OBITUARY

J. S. CLELAND, M.B.E., F.R.I.B.A., M.I.A.

The death in Pretoria towards the end of May, 1950, of Mr. J. S. Cleiand, a former Secretary of the Department of Public Works, Union Government, saw the passing of a well known figure in the public and social life of Pretoria.

Born in Walsall, Staffordshire, in 1879, Mr. Cleland was educated at the Queen Mary Grammar School and at Bishop Besey's School near Birmingham. At the age of 18 he was articled to Mr. Lavendar, an architect at Wolverhampton, and subsequently worked in the offices of many firms of architects at several centres. Whilst at St. Albans he was engaged on the plans for the Museum to house the trophies of the famous hunter, the late Captain Selous.

In 1903 Mr. Cleland came out to South Africa to join the late Mr. William Black, an architect in Cape Town. Prior to entering the Public Works Department he was associated with the firm of Messrs. Tully and Waters, architects of Cape Town, who were the successful campetitors for the new University at Pietermaritzburg. Mr. Cleland was responsible for the design and Mr. Tully supervised the work.

After several years on the staff of the Public Works Department as assistant architect, he became the Union's Chief Architect in 1920, a post that he held with great distinction over a period of twelve years.

In 1932 he was appointed Secretary for Public Works, the position from which he retired in 1938.

During his long official career in the Department, Mr. Cleland was closely concerned with the layout and development of the grounds of the Union Buildings and among the well known works that he planned during his period of office were the General Post Office at Pretorio, the Hospitals at Pretoria, Bloemfontein and Cape Town and the Addington Hospital at Durban, the new Museum building in Pretoria and the earlier buildings of the University of Pretoria. In association with the late Sir Herbert Baker, his work on the South Africa House, London, and on the national memorials, replicas of the Delville Wood Memorial, at Pretoria and Cape Town, call for special mention.

For his outstanding services and organisation of military building works in the Union during the First World War he was awarded the M.B.E.

In his official capacity he demanded much of others but, on the other hand, he gave even more of himself in the process. Under his control and guidance, the Architectural Division of the Public Works Department, over the many years, grew into a strong and forceful body and he gathered round him men of ability who responded to his inspiring leadership. The standard of the Union's public buildings was raised in a marked degree.

Mr. Cleland, as a member of the Inaugural Board, was largely instrumental in bringing about the registration of Architects and Quantity Surveyors, with the Union Act of 1927.

In various ways he was a man of great value to South Africa and he was responsible for much pioneer work which has proved to be both farseeing and sound. Mr. Cleland encouraged artistic effort and as a member of the Historical Monuments Commission, he did a great deal towards the preservation of the Union's historic monuments and sites.

After his retirement in 1938 from the Secretaryship of the Department of Public Works, Mr. Cleland held many advisory and consultative appointments. He was advisory architect to the Pretoria General Hospital and a member of the old Housing Baard. More recently he was appointed consulting architect for the Kimberley Technical College and the Art Gallery and Theatre in the new Civic Centre at Kimberley under the development scheme planned by that Municipality.

In 1934-35 Mr. Cleland was President-in-Chief of the South African Institute of Architects.

For many years he served on the Board of Trustees of the National Zoological Gardens, Pretoria, and on the Board of Governors of the Girls' High School, Pretoria, and he was an early member of the Rotary Club of South Africa, representing the architectural profession on that body

F. W. MULLINS.

## BOOK REVIEWS

SOUND ABSORBING MATERIALS, by C. Zwikker and C. W. Kosten. First Edition, ix + 174 pages; 92 diagrams. Amsterdam, Elsevier Publishing Coy 1949 Price 22s. 6d. The authors have written this book in order to provide a scientific basis for the design of sound absorbing materials.

The theory which has been developed takes most factors into account and consequently becomes rather involved. In

order to make the relations suitable for practical use, they have been simplified by considering low and high frequencies separately and by graphical representation.

The usefulness of graphical presentation is indicated in the first chapter which includes examples and initial theory.

Parous materials are dealt with very thoroughly since they play an important part in absorbing materials. Practical results are compared with the theory and show good agreement. Measurement techniques for determining acoustical impedance and absorption coefficient are described. These include older techniques and some newly developed electrical methods which simplify measurements.

A chapter is devoted to resonant absorbers which are becoming important for providing absorption at low frequencies. Curves are given to simplify design and it is shown that high absorption over an extended range of frequencies may be attained by the use of double resonators.

This book should be very useful for the design of absorbing materials since an understanding of the underlying principles will reduce the amount of empirical work required to produce materials with desired characteristics.

#### ARCHITECTS' YEAR BOOK: 3.

Edited by Jane 8. Drew and Trevor Dannatt; published by Paul Elek, Ltd., London. 35%. 182 pages, 215 illustrations. Although this volume has been published for some considerable time now, it is felt that, even at this late stage, the merits of this publication should be brought forward.

It is unlikely that readers will be unfamiliar with these year books. The first of the series established a new and unique standard in architectural publications. While it was specifically designed for the architect reverting to his professional pursuits after the disruptive events of World War II, it brought together in a balanced form well chosen articles on aesthetic, technical and general topics. Beautifully printed by Lund Humphries and generously illustrated, the first annual established a firm place for itself in the sphere of architectural publications. This standard has been more than adequately maintained by the editors in the second and third year books.

The present volume again exhibits a characteristically contemporary architectural approach and succeeds in contributing to the theory and practice of modern architecture by bringing together articles by varied contributors, by the illustration of recent work of general interest and by the inclusion of articles on subjects bordering on architecture and affecting it. Contributions from many parts of the world are included—from South America, Italy, Switzerland and "wherever good architecture is to be found" (South Africa is not represented). These articles, as before, cover Town Planning, the Visual Arts and Architecture. Not without interest is that on Prestressed Concrete by the well-known Dr. K. Hajnal-Konyi.

Like the previous Year Books, there is more than a little to interest all architects and this volume must surely take its rightful place on the bookshelf.

W.D.H.

Report of the Committee on the Protection of Building Timbers in South Africa, entitled TERMITES, WOOD-BORERS AND FUNGI IN BUILDINGS. National Building Research Institute, Council for Scientific and Industrial Research. Pretoria, 1950. 218 pages. 203 illustrations.

Published in book farm, this is the report of the Committee which was set up in 1947 by the South African Council for

Scientific and Industrial Research for the purpose of investigating the problem of termite damage in buildings. As the work of the Committee proceeded it became apparent that the terms of reference were too circumscribed and it was decided to extend these to include the study of other wood destroying insects and fungi.

The preface indicates that much of the research work requires to be finalised and that this publication should be regarded as an interim report. While this research is necessary in order that the full story may be told, yet this fact does not detract from the solid merit of the present publication.

While much work had previously been completed on the subject of termite-proofing there has been no co-ordinated effort to out the results of this work into general practice in the building industry. Moreover, while it has been known for a considerable time that timber in buildings in different parts of the country is subject to attack by termites or borers, and although protective regulations are enforced in the Cape and Natal, yet for the average person the picture has remained obscure. Furthermore, certainly in the Witwatersrand and Pretoria areas where termite infestation of buildings has developed to an alarming extent, and where no protective regulations are in force, various methods have been adopted. Lack of knowledge of the habits and characteristics of the particular termites has meant that these methods, often costly in themselves, have merely encouraged a false sense of security. Such measures have usually been of a rather haphazard trial and error nature, which the survey results contained in the report under review prove to be on the error side more often than not

If for no other reason, the Committee's analysis of the methods of proofing which have been variously adopted would give this report great value.

The report, however, goes much further and brings together in one valume and in a reasonably concise scientific form a great body of material and information on this important subject. The first chapter deals with the incidence of the various termite species and their geographical distribution. The second records the frequency and manner of infestation of buildings in the Pretoria-Witwatersrand area, while the following chapter surveys existing termite proofing practice. The two subsequent chapters deal with the eradication of existing subterranean termite colonies, soil poisoning during the construction of buildings and the recommended practice for proofing new buildings against subterranean termite attack.

When it is realised how high is the incidence of infestation and how destructive and costly the attack of this type of termite, it is inconceivable that any responsible person concerned with the erection of buildings would hesitate to adopt the relatively simple and inexpensive methods of proofing now recommended, if, in fact, such measures do not become part of the obligatory building regulations.

Further chapters deal with the infestation of buildings by

wood-boring insects; the fungal decay in woodwork; and the chemical impregnation of timber.

In view of the enormity of the problem, the costliness and difficulty of subsequent eradication, this report should be in the hands of all concerned with the construction of buildings. Moreover, one can fully support general recommendation number five of the committee, which reads as follows:—

"5. Owing to the widespread lack of knowledge regarding the recognition and habits of the destructive insects, local authorities in the affected areas should take steps to employ staff capable of undertaking the work of identifying the species of wood-destroying insects prevalent in their areas. There is a special need for men capable of scrutinizing building sites and of eradicating subterranean nests of wood-destroying termites before construction is begun It is visualised that such a service could be made available as part of the compulsory supervision (viz. approval of plans, etc.) normally exercised by local authorities over construction within their areas of jurisdiction."

W.D.H.

THE PHYSICAL PLANNING OF ISRAEL. By K. H. Baruth,
A.M.T.P.I. Shindler and Golomb, 41 Great Russel Street,
London, W.C.1 155 pp. 15s.

The young state of Israel presents unprecedented problems in the field of Town Planning as well as new and unique appartunities to put recent theories into practice. It would indeed be difficult to find a precedent for so small a country absorbing immigrants at such a tremendous rate.

Congestion of already overcrowded cities alone cannot cope with an influx of such proportions, even if inordinate expansion be carried to extremes. New towns have to be established, new lands have to be found for agriculture, new industries have to be created and the mineral wealth of the land further exploited.

Overall planning on a sound regional basis seems essential (cf. The Lowdermilk Plan) if this intensive settlement is to conserve rather than blot out the natural assets of the land It is quite obvious that problems of this nature can only be tackled on a national scale. The greatest obstacles to such planning are usually the private ownership of land and a complete absence of any governmental machinery capable to deal with land acquisition and development.

Israel should have fewer difficulties than most capitalist democracies for the following reasons:—

The greatest single landowner is the Jewish National Fund, a quasi-official agency which is by far the largest purchaser of land for development purposes. Such lands are then leased to settlers at a nominal fee.

Most of the remaining lands being settled at the present time consist of lands already belonging to the government or abandoned Arab holdings for which compensation will have to be paid, again by the government.

The possibility therefore of using this existing set of circumstances as a foundation for further legislation seems worthy of investigation.

At least one would expect to find in a book solely devoted to the "technical and legal aspects" of the planning of this particular country some mention being made of this existing set-up. It is therefore disappointing to find all this being almost completely ignored.

Questions of recovery of betterment value, expropriation, compensation, the creation of a new governmental department, etc., are all admirably dealt with and are no doubt just as informative on the subject as the many Reports which have been appearing from time to time in England and elsewhere. (Vide particularly the "Uthwatt" Report in England and our own Report No. 5—Regional and Town Planning). Many of the excellent photographs seem quite relevant to the text of this book.

A COURSE OF REINFORCED CONCRETE DESIGN, by Thomas J. Bray, M.I.Struct.E., M.Inst.B.E. Published by Chapman & Hall, Ltd., London. Second Edition Revised, 1950. 220 Pages, 27 Charts and Graphs. Price in England: 30s. net.

This book, which is based on a series of lecture notes prepared originally for the author's use, covers the practical aspect of basic reinforced concrete design and gives only sufficient structural theory for the understanding of the fundamental principles involved in design. Commencing with elementary concrete technology, the author investigates the usual slabs, beams, columns and footings; then passes on through retaining walls to touch on structures such as tanks, silos and arches. The examples given are well presented and backed with a useful and comprehensive set of design graphs and charts.

The present second edition has been revised to include references to Code of Practice C.P.114 (1948), but the appendix would have been of more value had the implications of these recommendations been more fully dealt with.

Practical design is a difficult subject to present in a written form, but the author has approached the problem in a good straightforward manner. In common, however, with the majority of lecture notes, the text as presented should be clarified and amplified by external reading, as condensation of subject matter appears to have been carried a shade too for in this book.

C. H. CLARKE.

## NOTES AND NEWS

#### THE "CONSTRUCTA" BUILDING EXHIBITION

The Deutsche Messe & Ausstellungs Gesellschaft of Hanover advise us of a very comprehensive exhibition to be held in Hanover from 3 July to 12 August, 1951. The exhibition has as its theme Reconstruction in Europe and is being organised on a wide basis under the patronage of the President of the Federal Republic, Professor Theodor Heuss. The exhibition consists of sections devoted to National and Regional Planning; Town Planning and Housing Estates; Housing; Building Techniques and Organisation; Building Handicrafts, Industry and Machinery Industry; Foreign Countries and Special Exhibitions. The emphasis is on the tasks which lie ahead and arising at the present time.

#### **EDITORIAL**

For the first time since Christmas, 1943, by reason of the innumerable difficulties which have beset the "Record" since that time, including poper shortages, lobour difficulties and the disastrous fire in the Printer's premises, this issue is scheduled to appear before the end of the year—a fact which is in no small measure due to the co-operation of our Printers. The Editors, therefore, have pleasure in taking this opportunity of conveying to all our readers Christmas greelings and best wishes for a busy and prosperous New Year.

#### SITUATION OFFERED

Qualified Architectural Assistant required. Junior partnership affered to suitable person by well established practise in Bloemfantein with branch office in Kroanstad.

Apply in writing to: The Editor, Architectural Record.

#### PROVINCIAL WORK (TRANSVAAL)

LIST OF ACCEPTED TENDERS FOR PROVINCIAL SERVICES FOR QUARTER ENDING 30th SEPTEMBER, 1950.

SERVICE	ARCHITECT.	QUANTITY SURVEYORS.	CONTRACTORS.	AMOUNT.
De Deur School, Verceniging:     Alterations and Additions.	Mr. C. Small	Mr. S. Samers Vine	Mr. D. B. le Roux	€6,798
Bedford View Road Depot: Ex- tensions to Workshops, Stares, etc.	Mr. Angus Stewart Messrs. Davids & Hoos	Messrs. Farrow, Laing & McKechnie	Messrs, v. d. Spek & Mat- Ihysen	£33,231/15/2
Houghton Primary School: Rand Central: Additions.	Messrs, J. C. Cook & Cowen	Messrs. Venn & Milford	Mr. W. S. Crichton	19,246
Pretoria Normal College: Princi- pat's New Residence.	Mr. Erik Todd	Messrs. Auslin, Stewart & Ellis	Messrs, Bolsenbroek & van Dijkhorst (Ply.) Ltd.	€3,350
5. New Parkhurst Primary School: Rand Central.	Messrs, D. Pinshow & C. Graatewal	Mr. J. L. Norton	Messrs, H. D. Abery (Pty.)	£34,572
New Nigel English Medium Primary School: Rand East.	Mr. F. Hesse Mr. N. J. Green	Messrs, Labuschagne, Law & Kennedy	Messrs. Bolbyl & Schep (Ply.) Lid.	£20,150
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9. Helpmekaar Boys' High School Rand Central: New Hostel,	Messrs. O. A. Fisch- beck, O. Bjornhaug, A. B. L. Burman	Messrs, J. W. Cowling & Son	Messrs. H. D. Abery (Pty.) Ltd.	£41,797
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<ol> <li>Grasmere School: Rand West: Additions.</li> </ol>	Departmental	Departmental	Mr. D. B. le Roux	£3,658
12. New Parkhill Gardens Primary School: Rand East.	Departmental	Departmental	Mr. B. D. Bauwer	£26,697
13. Krugersdorp East Afrikaans Medium School Rand West Additions and Alterations,	Mr. P. Shillington	Mr. L. J. Millard	Messrs. Eloff & Altman (Pty.) Ltd.	£10,982
14. New M. W. de Wet Primary School: Rand East.	Dapartmental	Departmental	Mr. J. D. Verhoeve	\$18,398

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