SOUTH AFRICAN ARCHITECTURAL RECORD

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CONTENTS FOR FEBRUARY 1949

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The Entrance Staircase, Coleshill

INIGO JONES

By JOHN STEEGMAN

The English Renaissance produced some remarkable people; Shakespeare, for example, and Queen Elizabeth, and Francis Bacon. And it produced two architects to whom the adjective "great" may legitimately be applied, and whose fame was and is European. They are Inigo Jones and Christopher Wren; each in his own day was celebrated far beyond the English Channel, and the works of each have long since taken their permanent place in the history of architecture. Inigo Jones also has a place in the history of the theatre, and thereby enjoyed in his lifetime two careers simultaneously.

We know, unfortunately, very little of Inigo Jones's early life. He was born in 1573, when Shakespeare was a boy of nine and the illustrious Queen Elizabeth still had thirty years to reign. By the time he was about 25 he had evidently shown himself as a promising young man, because he was then enjoying the patronage of the Earl of Pembroke, one of the most influential men of the day. In the last years of the century Pembroke sent his young protege to Italy to study and to gain experience. The exact dates of this journey are unknown. It must have been after 1597, since Jones witnessed his father's will in London in that year; and he was in Venice in 1601, as we know because he bought a copy of the works of the great Italian architect Palladio, in which he inscribed the place and date of purchase. In 1603 King Christian IV of Denmark invited him to Copenhagen, direct from Italy, which suggests that he already had a considerably reputation. And he was back in London before the end of 1605.

For some years after that, although his chosen profession was that of an architect, Inigo Jones devoted himself to the theatre. This perhaps needs a word of explanation. It was not the theatre of Shakespeare, the commercial London theatre, but the private and semi-amateur Court

entertainments, the Masques and Revels, with which Jones was concerned. James I's Queen, Anne of Denmark, adored these performances and indeed frequently took part in them herself. They were nearly all written by Ben Jonson, the greatest dramatic poet of the age except Shakespeare, while Inigo Jones designed the settings, costumes, lighting and all the complicated stage machinery by which one elaborate and beautiful scene succeeded another with a swiftness that astonished the spectators. In fact, Inigo Jones completely altered the conception of the stage; in place of the old conventions, which depended solely on the spectator's imagination for their effect, he provided the illusion of actual reality. He set the permanent model for movable scenery and variety of costume in the English theatre.

Inigo Jones worked in harmony with Ben Jonson for some years, but by about 1612 the partnership was showing signs of strain. Jones' official position was that of surveyor to the Works to the Prince of Wales, but the Prince died in 1612—a heavy loss to the country. Jones was then free of his rather tedious duties, and the following year he set out on his second visit to Italy. He travelled in the suite of the Earl and Countess of Arundel, the friends and patrons of Rubens and Vandyck. From his arrival in Milan in 1613 till his return to London in January, 1615, we are able to follow Jones' movements in some detail, from Milan to Vicenza, thence to Rome, Naples, back to Rome again and Tivoli, up to Verona, Venice, again Vicenza, across to Genoa and so home by Arles, Nîmes and Paris.

Now, the real significance of that visit was this: that Jones was able to spend a year and a half in intensive study of Italian and Classical architecture, and especially of the works of Palladio (1518-1580) at Vicenza and Venice. The result was no less than a revolution in English architectural taste.

The English great house of the 16th century was, as a rule, a rather confused, if picturesque affair built round a courtyard in a mixture of styles and covered with ornate and elaborate decoration; it was generally an accumulation of buildings rather than a considered piece of architecture. But the English Palladian house of the 17th and 18th centuries is ordered in strict symmetry, with ground-plan and facade forming a complete and perfect unit. It was Inigo Jones who brought about this revolution. He introduced "good manners" into the old romantic disorder, and classic reasoning where previously there had been little more than picturesque impulse.

After Inigo Jones returned from Italy he continued occasionally to produce Masques with Ben Jonson; but these two giants did not work happily together. Soon, in the robust manner of the age, they began roaring abuse at one another in print until Ben Jonson went rather too far and was warned by the King to be more careful.

Jones was appointed in 1615 Surveyor of the Works to the King, and one of his first buildings after that was the famous Banqueting House at Whitehall. This, which has one of the loveliest facades in London to-day, was designed as only a part of a vast Palladian palace, the rest of which was never built. Had it been, as we may judge from Jones' designs now at Oxford, it would have been one of the noblest secular buildings in Northern Europe. But, alas, the Treasury could not stand the strain of so vast an undertaking; the Banqueting House was built, and there the project stopped. Fifteen years later much the same thing happened at Greenwich, the Royal Palace down the Thames from London. Jones built the beautiful Queen's House for Charles I's Queen, Henrietta Maria, in 1635, but he was again unable to complete the greater part of his design; it was left to Wren, three-quarters of a century later, to carry it out.

Jones' work, however, was not confined to building palaces and great houses. As Surveyor of the Works, he was charged with various town-planning schemes, chiefly to introduce some degree of uniformity into London streets. In this capacity he also designed the two great piazzas of Covent Garden and Lincoln's Inn Fields, in both of which his original lay-out remains. St. Paul's Cathedral, too, claimed his official attention. By 1630 it was in such a state of dilapidation as to cause alarm for its safety; Jones not only strengthened and repaired the fabric but built a new West front. This may not have been altogether successful, but we cannot judge since the whole Cathedral was destroyed thirty-six years later in the great Fire of London.

In 1640 the last Masque was held at Whitehall. Two years later civil war broke out. Charles I, his Queen and their Court, left London, and in 1643 Inigo Jones also left the capital having been deprived of his official post. He suffered heavily through the war, being besieged in Basing House for over two years, but by 1648 he was able to resume his private practice as an architect. In 1652 Inigo Jones died.

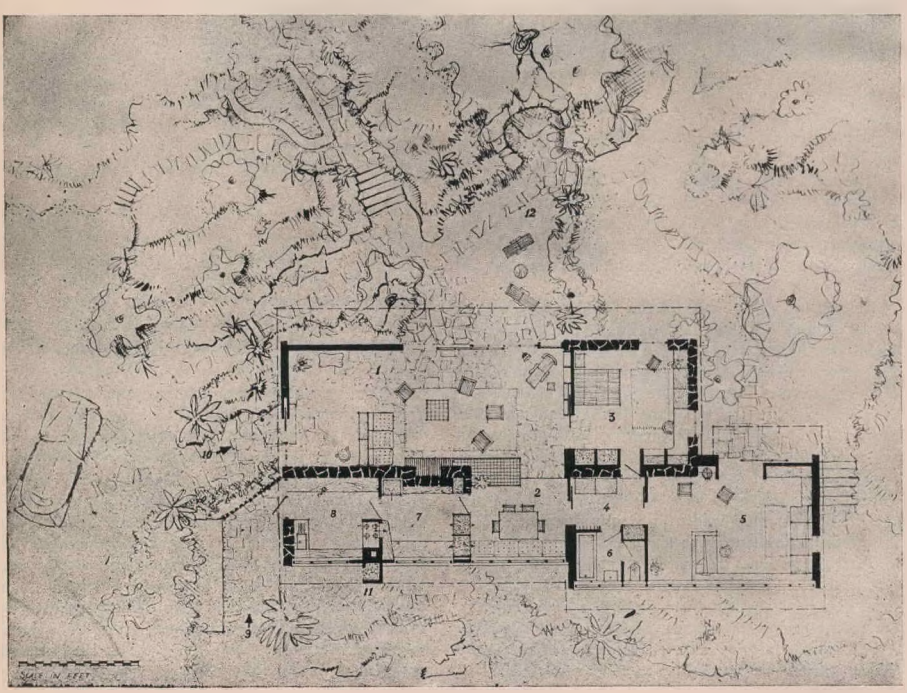
Not very much of his work survives, but there is a very large collection of his architectural drawings at Oxford, and nearly five hundred of his theatrical designs are in the library of the Duke of Devonshire at Chatsworth. His surviving masterpieces are at Whitehall and Greenwich, but his tremendous authority remained unquestioned for a hundred years after his death. The new canons of critical taste that he imposed on succeeding generations were inspired by both Palladio and by antiquity, but they became under his guidance English in spirit and classical in their masculine and dignified form. Inigo Jones is perhaps unique in that his fame and importance are out of all proportion to his actual surviving work. It is his authority that has survived.

FARMHOUSE STAUCH

ARCHITECT H. W. E. STAUCH

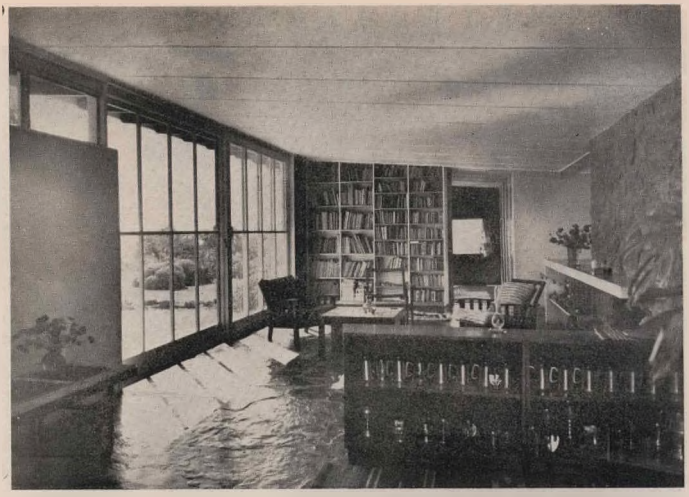
An open play shelter, built in field stones by native labour, was originally built on the site. This forms the core of the new farmhouse which has been built around the original shelter, the conversion being completed with unskilled labour. The house stands on the Southern slope of a small koppie with a free view to North, East and South. Directly to the North there is a beautiful indigenous tree which has been incorporated in the layout to provide a shady sitting space. The section follows the site, by joining a step between the old and the new sections. The simple monopitch roof, sloping from North to South, also follows the contours. The cost was £800. Key to the Plan below:—1, Living; 2, Dining; 3, Bedroom; 4, Dressing Room; 5, Study; 6, Bath; 7, Kitchen; 8, Scullery; 9, Service Entrance; 10, Main Entrance; 11, Service Stack and Motor Room; 12, Lawn.

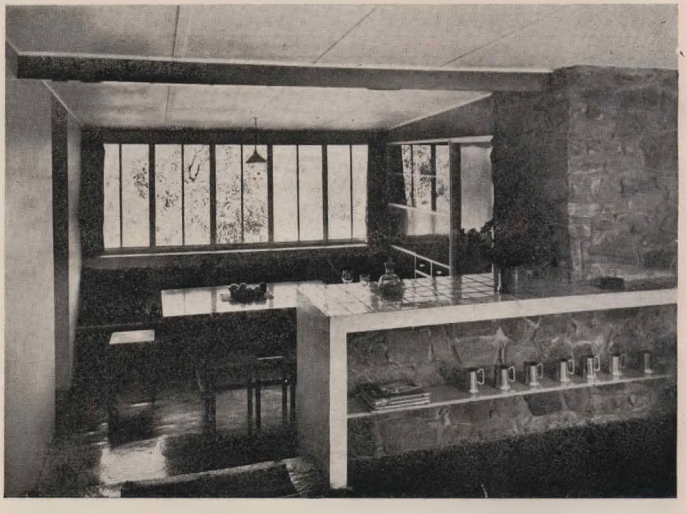
N



PRETORIA

Above, view from North East. Note the native wall decorations. *Below*, view of lounge looking towards the entrance door with, on the left, the bar counter cutting off the dining recess.

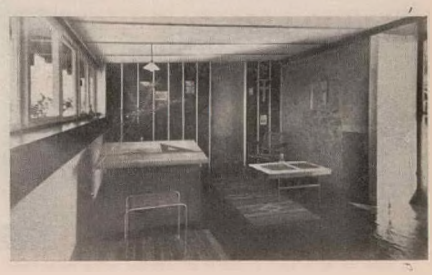




Above, the lounge, looking towards the bedroom. *Below*, the dining recess, seen from the lounge.

FARMHOUSE STAUCH

Left, a view from the dining recess into the living room. *Below*, two views of the study. On the right of the bottom illustration can be seen the stone wall which formed the external wall before the additions were made. The original portion was built in random rubble field stones with random slate floors. The additions are in stock brick, plastered internally, with mastipave floors.



PRETORIA

NEW FACTORY AND OFFICES IN JOHANNESBURG FOR

MINE SAFETY APPLIANCES

HAROLD PORTER AND PARTNERS, ARCHITECTS

This building for Mine Safety Appliances illustrates how collaboration between the Architect and Client in thoroughly organizing the space of the structure has resulted in a building that has assisted the client's business organization to a great degree

Problem

To provide offices for the Managing Director, Secretary, Administrative and Sales Staff of a firm which manufacturers safety equipment for mines. The floor space of the rest of the building was to be designed to give the most flexible arrangement of the available area and to provide for two major functions: factory activities and storage facilities. The factory's production line also demands sufficient flexibility to permit of rapid and easy alterations to suit the varying demands of the various mining industries requiring this equipment.

Solution

Test holes put down at the very outset revealed that firm foundations could be procured only at a depth of 8 ft. 6 in. below pavement level. To ensure an economical project, a basement was thus indicated despite the clients original desire to avoid a multilevel solution.

The building consists of a basement and ground floor factory and storage space with a third floor of offices. The main staircase links the pavement, ground floor and first floor levels, with an auxiliary staircase serving the basement from pavement level. A fire-escape at the rear likewise serves all these floors and acts as the vertical service communication.

A hydraulic lift and internal staircase gives the necessary communication between the basement, pavement and ground floor levels. Telephones and message chutes complete the internal communications systems.

The floor space available on both working floors is required for a variety of purposes and was consequently left as clear as possible to enable the clients to attain the necessary flexibility.

The office accommodation of the first floor was required to provide once again the maximum flexibility, light, ventilation and ease of communication. The clients stipulated a light, cheerful atmosphere and asked for plants to be incorporated in the design. The internal court with its flowers and open appearance satisfied this request and provides quite a pleasant surprise for the visitor reaching the top landing of the staircase.

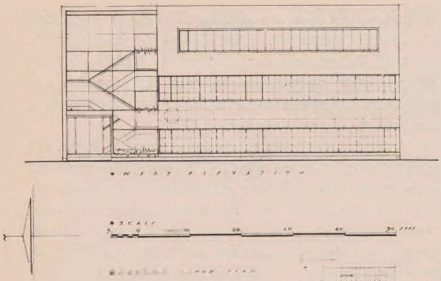
The street facade is an interesting essay in form and colour. The main staircase window is white, the rear and side walls of the stair hall pale yellow, the dado walls and soffits of the staircase dull red with beam supports in white. The floors, including treads and risers of the stair are black, the portion of the wall between the two horizontal windows on the street elevation is concave in section and is painted dark green with aluminium lettering. A pale sky-blue slab is apparently suspended above the top landing and a black frame contains the entire composition broken only where the volume of the first floor projects through it with the projecting hood of the windows (to the first floor) painted green.

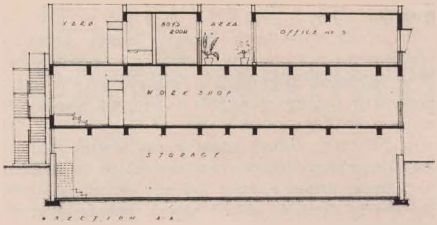
Adequate ventilation and the provision of shelter to the windows has succeeded in preventing the west-facing rooms and stairhall from becoming uncomfortable from excessive heat. Moreover the precautions taken in insulating the roof and providing venetian blinds to all windows have assisted in maintaining reasonable working temperatures in all rooms.

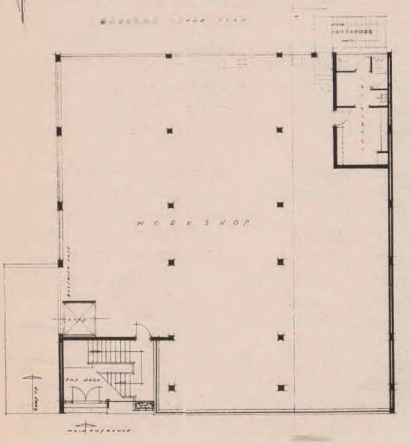
The structure is reinforced concrete with brick panels and steel windows: asphalte sheet waterproofing to the roof is protected by loose laid hollow tiles painted with Coolite. Wood and glass partitions define the offices, with built-in fittings and linoleum floors; wiremesh is used to subdivide the factory space, and asphalte is the flooring material. The entire external plastered surfaces are painted with Snowcem except for the granolithic and steelwork which have the normal protective paints.

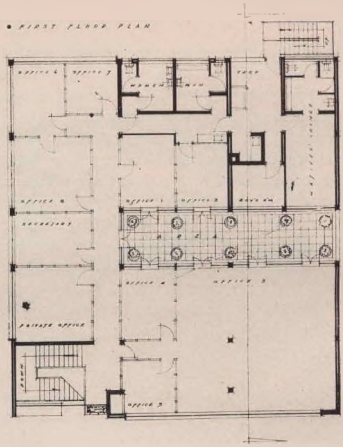
West facade with its continuous windows to offices, workshops and stores.

MINE SAFETY APPLIANCES — JOHANNESBURG









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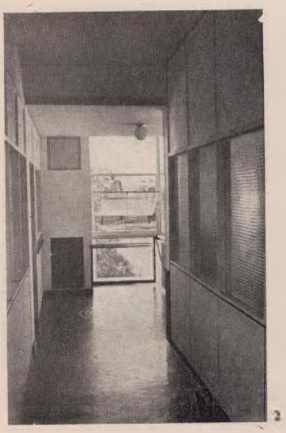
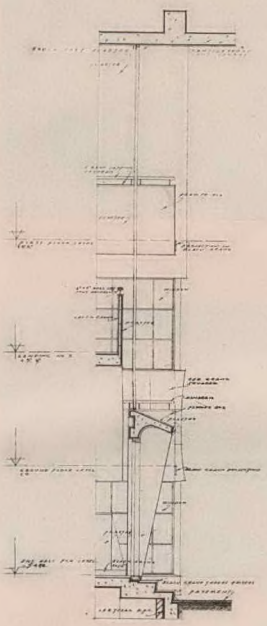


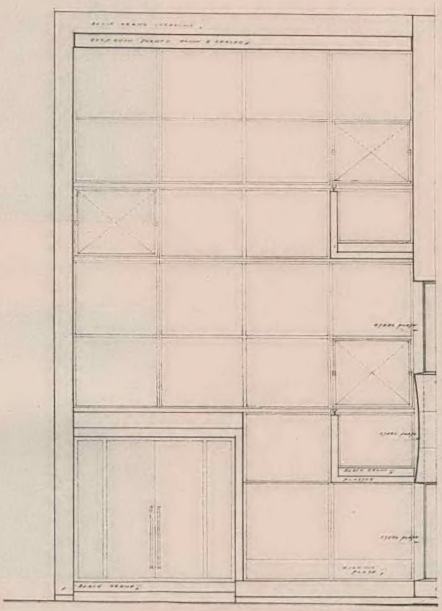
2

1. View of Area showing Planting.
2. Interior view looking along passage towards Stair Area.

MINE SAFETY APPLIANCES — JOHANNESBURG

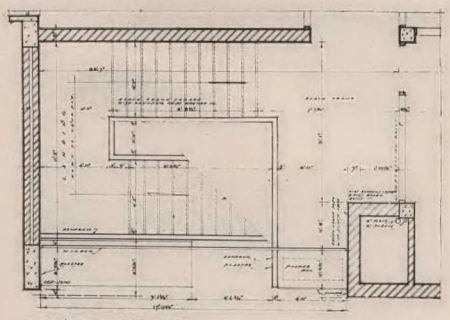


• SECTION

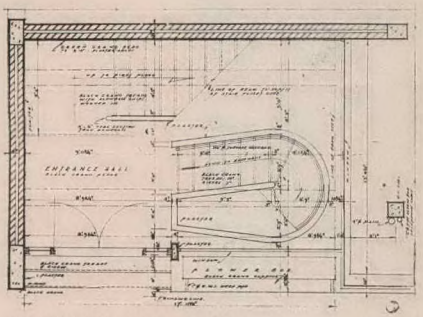


• ELEVATION

Details of Entrance Window and Staircase.



• FIRST FLOOR PLAN



• ENTRANCE FLOOR PLAN

1. Typical, spacious, airy and well lit office facing planted area.

2. General office with private office in background.

3. West Elevation showing the protective hoods to the Staircase window and to offices on first floor.

4, 5 Detail of Staircase window.

1

4

2

5

3

THE WORLD OF ARCHITECTURE

By GILBERT HERBERT

INDOOR-OUTDOOR RELATIONSHIPS

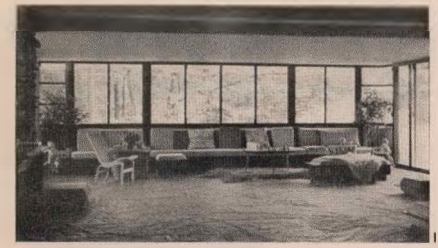
If I were to yield to the current trend of using psychological jargon on the flimsiest pretext, I would accuse architecture of exhibiting schizophrenic tendencies: or perhaps it is the person for whom the client caters who has the dual personality. On the one hand there is an introvert yearning for privacy, for enclosure, that return to the cloister of which Mumford writes: but on the other hand there is evidence of desires to eliminate encircling barriers between inner and outer space, to create a new form of living which is a synthesis of the indoors and the outdoors.

From divergent points of departure, and travelling different roads, the Romantic and Mechanistic schools of architectural thought have arrived at many common conclusions in their studies of inter-spacial relationships, ideas similar in theory, though in practice endorsed in characteristically different ways. To make a sweeping, and perhaps rash, generalization, it may be said that in order to bring about a closer integration of nature, i.e. the order without, and architecture, or the order within, the Romanticist naturalizes his architecture, whereas the Mechanist clothes nature in architectonic forms. Organic architecture gives rise to the luxuriant Garden Room of Taliesin West; Functional architecture to the icy lyricism of the roof garden of the Villa Savoye, Poissy.

The first method of approach makes nature manifest by the introduction of internal planting and pools, and by the use internally of such rough wall and floor finishes (unplastered brick, stone, slate) as are usually by custom and association indicative of the exterior. The alternative line of approach is to so modify the natural external spaces as to bring them into character with the architecture. Architecture is, so to speak, turned inside out, and nature is "de-naturalized": the flowerbed is replaced by the flowerbox, and the rose has a concrete trellis for a stem.

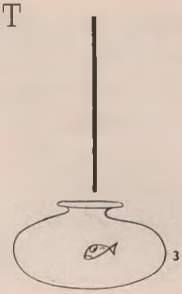
Both techniques, if judiciously employed, achieve a closer harmony between inner and outer environment. For a full appreciation of these new relationships, however, the intervening barriers of masonry must be replaced by clear, transparent screens of glass, thus making a consciousness of the exterior implicit in the interior. The use of the transparent screen and the interpenetrating plane which so subtly leads the eye from inner to outer space are devices which have given a practical base to the space-theories of modern architecture. "The sense of space as free and continuous within the house and to the outside, is achieved by means of open planning," writes Elizabeth B. Mock. ". . . This means that the eye is not stopped at the boundaries of the room, but led on by continuous planes."

In South Africa, as elsewhere, the shrinking scale of house sizes during the past decades has led the architect to pay ever closer attention to the compensation of outdoor space as a supplementary Lebensraum, either in fact, or by artifice and clever illusion. To architects who evaluate good design in terms of floor-area, this age of economic restriction has pointed a warning finger; we are told to tighten our architectural belts. We are perhaps fortunate that our climate is sympathetic to outdoor living, and perhaps the silver lining to the black cloud of space-economies lies in the rediscovery of the world outside the walls. This necessary integration of indoor-outdoor living (a *modus vivendi*, incidentally, well known to our rural African community) involves considerable problems of plan-organization. In addition, aesthetic problems of no mean order arise. It is with some solutions of the problems of form and space arising out of indoor-outdoor relationships, that we are here concerned.



Planning for privacy: House on Bear Run. Frank Lloyd Wright, Architect.

EXTROVERT



FUNCTIONAL

". . . poetry, multifold and dynamic."

Roof garden of the Villa Savoye, Poissy. Le Corbusier and Jeanneret, Architects.

A lyric essay in space relationships; a progression from totally enclosed inner space through openly defined outer space to space partially enclosed; a controlled movement of the eye by the dynamic use of transparent screen and interpenetrating plane; a sparing use of natural forms; and the treatment of external space as an architectural extension of the interior.

ROMANTIC

". . . out of the ground, into the light."

Garden Room, Arizona Desert Camp, Taliesin West. Frank Lloyd Wright, Architect.

The dissolution of boundaries between nature and architecture; the penetration into the house of the forms of the garden; indoor growth and a sward-like carpet in skilful conjunction with unsophisticated materials—stonework, redwood, and translucent canvas; a philosophy of the nature of materials, where a desert building becomes in pattern "an abstraction of mountain region and cactus life, set up in permanent masonry shells."

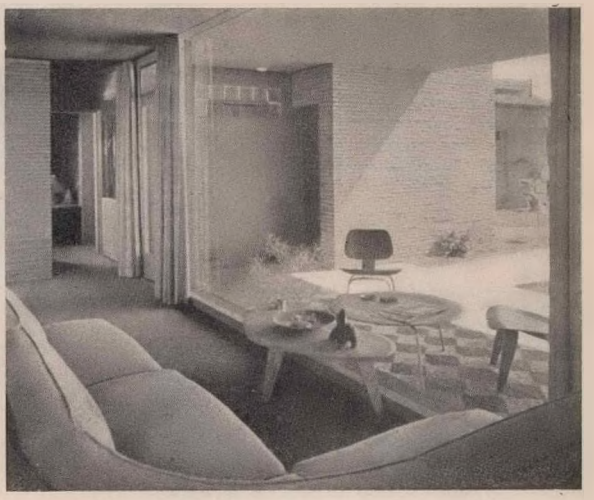
INTROVERT

2

Planning for view: House on Bear Run. Frank Lloyd Wright, Architect.

"cave-like security"

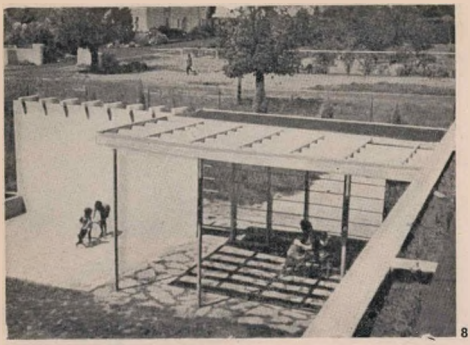
TRANSPARENCIES



7

Town and Desert Apartments, Palm Springs. H. W. Burns, Designer.

Problem: Where does outside end and inside begin? A sheer wall of glass, dissolving at one stroke all indoor-outdoor boundaries; the horizontal plane of the ceiling carrying through unbroken, with external brickwork repeating internally, to complete the homogeneity of inner-outer treatment.



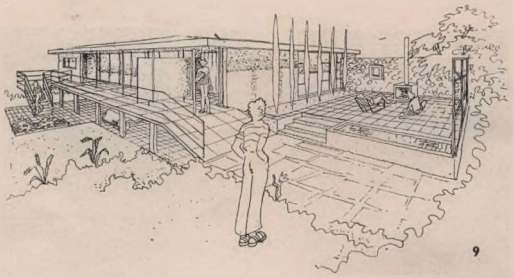
8

House in Lower Houghton. I. Dorner, Architect.

The use of architectural elements to define an outdoor living space; a terrace enclosed by screen wall, trellis, pergola and flowerbox.

A Sea-side House. R. E. G. Hope and Shirley Honnet, Architects.

The terrace here an unroofed room, enclosed on three sides by the house itself, a rubble screen wall complete with barbecue, and a trellis: and defined on the open side by a flight of steps and an artificial pool.



9

10

Robert R. Blacker House, California. Greene and Greene, Architects.

A forty-year-old example of the use of the pergola as an extension of the house into the garden; the rhythm of the roof members repeated in the regular beat of the pergola joists.

11

12

ABOVE: Carlton David Wall House. Frank Lloyd Wright, Architect.
AT LEFT: The Garden Room, Welch's Restaurant. L. M. Saunders, Designer.

Nature in the house: some lush examples of indoor planting, used in conjunction with the transparent screen, making indoor and outdoor growth simultaneously visible.

INDOOR PLANTING

ACKNOWLEDGEMENTS

1, 2, 3.—*If you want to Build a House*. Elizabeth B. Mock, Museum of Modern Art, New York, 1946.

5.—*The Modern House*. F. R. S. Yorke, Architectural Press.

6, 12.—*Autobiography*. F. L. Wright, Faber & Faber.

7, 10, 13.—*Architectural Record*, May, 48.

8.—*S.A. Arch. Record*, July 48.

9.—*S.A. Arch. Record*, 1942.

11.—*Arch. Record*, July 48.

INDOOR—OUTDOOR LIVING

13

THE STUDENTS' FORUM

In the beginning of the academic year 1948, the Students' Architectural Society of the Witwatersrand School created a Research and Discussion Group. The concept of student research had not until then been established in the field of student society activity. With the formation, however, of a student research council, by the National Union of South African Students, this idea came to be accepted by the Society, and it was decided after some discussion, to carry out a survey of Architectural Education. The paper that follows was read to a N.U.S.A.S. congress at the University College, Pietermaritzburg, in July, 1948, and attempts to discuss the problem and its approach by the method of research.

ARCHITECTURAL EDUCATION RESEARCH

By P. H. CRANKO

1. General Background and Scope of the Problem.

"Criticism of the educational system in South Africa as being too narrowly utilitarian was made by Mr. D. B. Reay in his presidential address to the South African Institute of Engineers in Johannesburg last night." Thus, tersely, does the *Star* of June 11, 1948, spotlight a problem of vital importance to all university students. "Continuing, Mr. Reay said, 'There is widespread anxiety over the relative failure of much of our educational practice thus far to encourage the sort of development which is necessary today, particularly in a democratic community. The failure . . . is manifest in a lack of capacity to think objectively in regard to the responsibilities which adults are normally called upon to bear, and our attitude to which must so greatly affect our lives and the lives of succeeding generations.'"

This problem of an unrealistic approach to education which faces us today is one not lending itself to an easy solution. Nor, in fact, are the causes which gave rise to this state of affairs readily apparent.

The value of a truly objective and scientific approach to this question, however, as opposed to the canons of erstwhile eclecticism cannot be over-rated. It is, in fact, an appreciation of this value which justifies and promotes research projects.

Among the lessons which are learned at a University are the student's freedom to contest, and attempt to rectify, those things which he perceives to be wrong, unreasonable, or illogical, and the discovery that there is, ultimately, no higher governing authority than logical thought and initiative. This realisation is an objective of true education, an essential element of progress.

We must ask of education today, is it doing its job. Is it fulfilling its purpose. If not, is our time being wasted, our precious capital carelessly squandered? If it is, is it doing so adequately? Are we getting the maximum benefit for the energy expended? If our education is not fulfilling its task, then we are fully justified in endeavouring to rectify the matter. More than that, even, in view of the tasks facing mankind today, we are compelled to do so.

Material inventions, breaking down the limitations of time and space, have brought men and nations closer together — sometimes uncomfortably close — and this proximity has made the solution of many problems underlying human relationships imperative. Add to this picture the effect which machine-production has had upon every aspect of life and you get the back-drop against which will be unfolded the education of the future, the broad trends and vague general outlines of which seem even now to be emerging into light.

It will be readily appreciated that Architectural education reform takes its place alongside an active agitation in many other fields and can only be considered in relation to them. In addition, any study of contemporary education must start with a consideration of the historical background

which gave rise to its present form, and the current trends in human evolution whose requirements will direct its future course.

A turning-point of great moment to the human race was the Industrial Revolution of the 18th Century, when improved methods and division of labour brought to light a new and abounding source of wealth. It was here that spurious motives, greed, avarice, and personal gain, discernible before that time in colonial exploitation and the slave traffic, twined their grim tentacles around the heart of the community. Gone were all graciousness and the art of living. In place thereof was a wild insanity of production and profit making. Hear these words from *The Rise of Modern Industry* by J. L. and B. Hammond (p. 232):

> "Thus England asked for profits and received profits. Everything turned to profit. The towns had their profitable dirt, their profitable smoke, their profitable slums, their profitable disorder, their profitable despair.
>
> ". . . The new town was not a place where man could find beauty, happiness, leisure, learning . . . but a bare and desolate place."

and (p. 222)

> "This concentration led to the complete neglect of the most urgent tasks of the age."

Thus it was that the Industrial Revolution, Father of our Machine Age, spread largesse with one hand and chaos with the other. It perpetrated a monstrous crime on humanity and left in its wake a heritage of wreckage and debris whose effects have not been eradicated even today.

It was at that stage that social conscience began to be awakened anew, prodded by writers such as Dickens, Kingsley and Gustav Doré. The humanitarians of the age perceived, through a love for mankind, the essential principle which the Greeks had realized so clearly before, the value of the individual. It was here that a new and truer direction for effort was indicated, based on the self-evident truth that the only justification for production lies in supplying honest human requirements, and not in feeding an unscrupulous and unreasoning profit motive.

Our machine-age, sturdy offspring of the Industrial Revolution, whilst helping to supply humanity's needs and opening up vistas of undreamed-of possibilities, whilst leading the way to high standards of industrial art, and a consequent refinement of everyday life, has as much need for intelligent control and direction if its by-products and relentless demands are not to rob the individual of his happiness.

The baneful effects of industrialisation on the urban scene, creating misery and squalor, are being gradually brought under control by a long and painful process of legislation—the by-laws. The limiting effect of the specialised and de-humanised systems of education which it has evolved and from which we have received our training, may be removed by a scientific and logical approach, impelled by the social revolution which is slowly but surely taking place.

The ideals for the education of the future; a broader scope, more liberal basis, and wider humanity will enable the student to find his inner freedom and self-mastery; a fuller, and more satisfying life. These ideals are clearly implicit in two quotations from the first of six volumes to be produced by Pres. Truman's Education Committee. They are,

> "To bring education to closer grips with present day society, in teaching students to understand their world and changes in it,"

and,

> "(To) heal the rift between education for work and education for life."

In this struggle the universities must retain their sacred independence of action. Freedom must come from within, and ideas of democracy and free thought be of primary import. Co-operation to find truth must supercede tradition and no outside interests be allowed to oppress or dictate policy. Society as a whole must be allowed to benefit from the universities' work rather than engrafted power groups.

It is significant to note with what insistence in modern writings the word "Education" appears alongside "Democracy"—an indication, perhaps, of the method whereby individuality may be liberated.

The "new" education will thus lead to an intelligent use of the "New Architecture" (the name bestowed on it by its early, ardent disciples), in the interests of the whole community. Its graduates' skills in using the new materials which science has placed within their grasp will be trained in obedience to this ideal, and their concrete, glass and steel structures, beautifying man's environment with harmony, efficiency and light, will reflect the universal trend—glorifying man's true greatness when subservient to the laws of order and fellowship.

2. The Nature and Scope of the Research Project.

Early this year, in line with N.U.S.A.S' policy, Wits. Architectural Society inaugurated its first specific Research Project.

An initial scheme, to investigate Native housing, had to be abandoned as it included more than our limited resources would allow us. Thereafter, Architectural Education was decided upon. Apart from the ordinary benefits which research confers on the student, this subject promises to enrich those who participate in it, in other more direct ways. Apart from assisting to bring present curricula up to date, a continuous requirement for all education, an added stimulus for effort is provided when the student is permitted to contribute to his own means of development. In the present case, the investigation of masses of related material, touching all phases of Architectural thought, will enlarge his intellectual horizons and enable him to see Architecture in a truer perspective.

The Architectural Society Research Group has been in existence about four months. The group comprises eighteen workers, and is designed as a directive body for research to be undertaken by the student body as a whole. Its officers are a Director, two secretaries, a treasurer, Director of publications, and convenors to control specific aspects of the work. The officers of the Architectural Society are, *ex-officio*, members of the research group.

It was discovered that a remarkable similarity of ideals exists between us and the A.F.B., Architectural Faculty Bureau, of the International Union of Students.

The I.U.S. aims, among other things, at the improvement of education techniques in all faculties, and the instilling of an awareness in the student of the relationship which his profession bears, and the responsibilities which it owes, to Society. The research group, operating in close harmony with the Research Council of N.U.S.A.S., has among its objects, the formulation of a revised Curriculum to meet the current needs of South African students and the compilation of a full summary of the scientific, artistic, and social equipment required by an architect.

Information will be collected from other Architectural student faculties, both at home and abroad, and by intensive local student research. The results obtained will then be distributed to all interested student bodies.

The field for research falls readily into two sections. On the technical side you have Science, Aesthetics and the History of Architecture. These include construction; materials, and the applied sciences; major aesthetics, the applied arts and the art of architecture; and the co-ordinated history of architecture.

On the Social or Humanistic side you have economics, politics, sociology (including group psychology), and the social sciences (public health, etc.). The material collected will be reviewed in the light of a detailed history of each group.

A small group of social students has generously agreed to help us obtain information about the social, political, and economic conditions surrounding our sources of information; a general picture of the country, and an intimate picture of the specific area, in which the education centre under review is located.

3. Progress Report.

The results of much of the preliminary activity undertaken have already been delivered to you in detailing the nature and scope of the research project, all of which had to be carefully evolved and decided upon virtually from scratch.

At present, members of the group are engaged in compiling a comprehensive range of abstracts from a wide variety of literary sources. This is being done in order to perfect our methods before passing on this branch of work to the general student body.

The questionnaire is also in process of preparation, and those who have had any experience with this side of the work will know that it is a tricky business. The National Building Research Institute of South Africa took a year to evolve a questionnaire concerned with sub-economic housing. We hope, however, to produce something in less time than that!

The most difficult part of any undertaking is always in the initial stages, particularly when new ground has to be broken. The past four months have thus seen an important phase of our work brought to completion.

Letters have been written to the other three universities inviting them to participate in the research, and it is sincerely hoped that they will do so. The value of harmonising architectural educational methods on a national scale in this country cannot be over-estimated, and such a course would serve to even further strengthen such bonds of friendship as at present exist between the universities, and perhaps in some instances lead to a better understanding.

Conclusion.

This paper on Architectural Education Research has endeavoured to cover a very wide field. It has stated categorically, without undertaking a detailed analysis, that our present educational systems are in need of revision; has endeavoured to describe some of the causes which have given rise to their present form; and has proposed a method of approach whereby, in a specific field, education may be made to more exactly coincide with the demands made upon it, in relation to the problems of the day.

A brief cross-section of informed opinion has indicated the need for education to be more liberal, i.e. not so highly specialised, and to embrace those vital subjects which will instil in the student an awareness of, and an ability to defend his democratic liberties. In its entirety, this education should integrate the student with his society, and remove the bane of an over-materialistic outlook, heritage from the past.

In concluding, I should like to quote the Architect Maxwell Fry:

> "Unless technical advance is made to contribute directly to increasing the total of human happiness, it is largely wasted. The recognition of this truth is now deeply moving the scientific and the medical world of thought, but it is not until thought is translated into action and the lives of people are seen to be affected for the good that we see the boundless possibilities that follow upon the action taken."

It is with that viewpoint in mind that I express the hope that this research project will be a success, and that numbers of future students will be blessed thereby, in some particular in which our own education has been deficient.

I Thank You.

OBITUARY

Edward Henry Waugh

The late Edward Henry Waugh, formerly City Engineer of Johannesburg, died in Johannesburg in September, 1948, at the age of 76.

Mr. Waugh, who was born in Melbourne, Australia, in 1872, commenced his professional career in the Surveying Department of the Victorian Railways and then served his articles in the office of a well-known architect in Melbourne, and later was engaged in architectural work for various firms. He came to South Africa in 1898, where he was appointed Assistant Building Surveyor in the Cape Town City Corporation. Anxious to pursue his studies, he proceeded to King's College, London, where he studied for some time under Professor Elsey Smith.

Returning to South Africa, he joined the staff of the Woodstock Corporation, and later, the staff of the Cape Town Corporation. In 1902 he was appointed Chief of the Architectural and Building Survey Branch in the Town Engineer's Department of Johannesburg. In addition to this work he was appointed Town Valuer in 1907, and became Town Engineer in 1927.

In 1916 Mr. Waugh was elected President of the Transvaal Association of Architects. He was a prime mover in the establishment of the Association's Journal, *Building*, and was its first Editor. He continued to guide its fortunes, both as Assistant and Honorary Editor till 1925. He was a member of the Institute of Municipal and County Engineers and an Associate of the Royal Institute of British Architects, and served as consultant to the University of the Witwatersrand during the early stages of the Building developments of that Institution.

Mr. Waugh is survived by his widow and a son, to whom we offer our sympathies in their bereavement.

NOTES AND NEWS

It is announced that Mr. Howard Robertson, M.C., F.R.I.B.A., is to receive the 1948 Royal Gold Medal for Architecture—the most distinguished award of the Royal Institute of British Architects.

He was educated in London and Paris, and as a young architect went to the U.S.A. and worked in New York and Boston. Returning to London he joined the firm of Stanley Hall, Easton and Robertson. Since he has been with the firm, they have been responsible for the architecture of the Hospital for Sick Children, Great Ormond Street, the entrance of the Savoy Hotel, the British Pavilions at the World Fair, The Paris Exhibition, and Brussels Exhibition.

From 1920 to 1935 he was principal and later Director of London's A.A. School of Architecture.

He will be the one-hundredth architect to receive this medal, first awarded in 1848.