The John Moffat building:
a conservation report
The John Moffat Building: a conservation report.

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The Research Committee,
School of Architecture and Planning,
University of the Witwatersrand.

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1 - INTRODUCTION 01

2 - THE ORIGINAL DESIGN
   2.1 - Background to the John Moffat Project 05
   2.2 - The Original Plans 09
   2.3 - The Design of the Building 13
   2.4 - Building Details 21
   2.5 - Technical Innovations 27

3 - BUILDING ANALYSIS 31

4 - MATERIALITY 41

5 - CONCLUSION 65
1.1 Background.

The John Moffat Building was built for the Departments of Architecture, Town and Regional Planning, Quantity Surveying, and Fine Arts in 1957. As a bespoke design, done collaboratively within the Architecture Department, it was quietly successful in meeting the needs of these disciplines and their users at the time. Over nearly 60 years it has been changed in ad-hoc additions and two new adjacent wings, and the users have altered in their organisation and numbers.

Regarding tenants, the now-School of Architecture and Planning has been motivating for an overhaul of the entire precinct. This follows a design competition for the new School of Construction Economics building which included some schematic ideas for refurbishing John Moffat. These designs raised concern that the building was not being given adequate protection as heritage (just missing the automatic protection provided by the National Heritage Resources Act of 1999 reached at the age of 60 years) and vulnerable to damage by consultants and internal contractors without adequate expertise in the restoration of modernist architectural heritage. This concern is because members of the School recognise the seminal importance of the building as a Modern Movement design.

To address these concerns, the Research Committee of the School has commissioned a graduate, Candice Keeling, with an additional qualification in Architectural Conservation, to carry out a study of the John Moffat Building. This report goes beyond what would be required to establish the building as a Heritage Resources Agency listed site. It aims to establish the value of the finishes, elements and original qualities of the building so these can be pro-actively protected and restored in the process of upgrading the precinct. Such changes would make the John Moffat an exemplary restoration of Modern Movement architecture, unlocking its potentials for research, teaching, institutional allegiances and publicity.

This report is intended as a discussion document that will be used to establish guidelines for any future changes affecting the building. It highlights areas and finishes needing immediate attention. It may also give insights into how the restoration can be adapted in a contemporary approach that is aligned with the original, synthetic vision of the original team of architects. As they wrote:

“The introduction of the new building into a Campus of traditional character and classic motifs posed the question as to whether the design should reflect current architectural theory, relying entirely on its contemporary merits or whether the building should be designed with cognisance of its setting, one in which an attempt be made to create harmony with its neighbours. The architects chose the latter, more exacting approach. ... An attempt was made to design a contemporary building which would nether the less be in harmony with its Campus setting. In its height, its scale and its simple massing and in the proportions of its modular openings it has an affinity with that which exists. A ‘fashionable design’ was avoided so that the building should not rapidly date, but rather, that it should exhibit a timeless character.” - Howie, W.D. (1959), page 20.
1.2 Structure.

The report was determined by firstly understanding the history of the building; the uses of the spaces within it and how users traversed the various areas, explored through important phases in the life of the building. Following this it develops an understanding of the materiality of the building and its various components, concluding with recommendations.
Figure 2: Western Courtyard circa. 1960
(Howie, W.D. (1959), page 20).
In 1921 the Department of Architecture was established at the University of the Witwatersrand as part of the Faculty of Engineering. Six years later in 1927 it had fulfilled the academic requirements to be recognised by the Royal Institute of British Architects or RIBA (which meant that upon graduation students were considered to have the equivalent of a RIBA examination). However, it was only in 1940 that the department achieved the status of Faculty (of Architecture) and it was able to issue the first official degrees, diplomas and certificates to graduating students.²

The School played a critical rôle in the growth and definition of campus architecture. Professor Geoffrey Eastcott Pearse was the first Professor of Architecture in South Africa and Head of the School of Architecture at the University of the Witwatersrand. He installed the teaching of the Beaux Arts tradition, which was based on classical concerns and how they could be interpreted eclectically. The growth of the School coincided with the development of the University which started during the 1920s with the neo-classical building of Central Block, which dominates the symmetrically placed central axis of the east campus. Over the next 30 years new buildings were constructed on the campus and modifications made to Central Block (after a fire) – the majority of the projects undertaken during the first 20 years were by the University architects¹ with Pearse providing a supporting role. It was not until the late 1930s that the University had faith in the ability of the architecture School and campus were designed predominantly by the lecturers; amongst others the Hillman Building in 1939 by Duncan Howie and the Dental School and Hospital in 1941 by Pearse and Cowin.

After 1932 the initial neoclassical stylistic approach of Pearse was modified to that of the International Style with the works of Gropius, Mies van der Rohe and Le Corbusier dominating the aesthetics and design approach of the School of Architecture. The School’s theories and aesthetics merged with traditional classicism and modernism to form the overall principles of the School. Herbert wrote: “both are governed by a rigid rectilinear geometry, and in both they are disciplined by an understanding of the relationship of form to structural technology.”⁵ However, the various ways in which the rationales were interpreted led to diversity in the staff members approach to teaching and architecture.

The University restricted employees of the Architecture department to a small amount of private work; this resulted in any larger projects utilising the philosophy of teamwork. This approach is said to have derived from the teachings of Walter Gropius, but, more likely grew out of common education, similarities in approaches, corresponding abilities and above all else friendships. These collaborations resulted in a shared workspace being established known as ‘Studio Seven’⁶, a space that allowed the staff to keep the professional work separate from that of the academic faculty, all the while allowing them to carry out commercial activity on the campus. A small number of (predominantly modest) projects were produced out of the office in a tin shed on the University campus, with all aspects of the work being done by the architects themselves. One of the projects undertaken by Pearse and his colleagues (including John Fassler) that is of great significance was Escom House in 1935. This project cultivated Fassler’s interest in the “application of advanced technologies in both structural and environmental control”⁷ which was fully exploited later in the John Moffat Building.

‘Studio Seven’ along with other practitioners (predominantly in Johannesburg) brought about the Transvaal Group. This took the form of an established association consisting of “loosely constituted alliance of progressive practitioners and...
teachers and students of the School of Architecture, a coterie of kindred spirits which Le Corbusier dubbed Le Gróupe Transvaal.”

The Transvaal Group introduced modern architecture within South Africa and particularly the Witwatersrand. They translated the new theories of architecture into practical buildings, producing structures that have since become icons by not only individuals, but “small partnerships of practicing architects working in harmony.”

These alliances were to last well into the 1960s, although Le Corbusier’s influence was waning from the late 1930’s.

Over the years the faculty grew, in the number of staff members as well as students, and many changes occurred. The most influential was in 1948 when Professor John Fassler took over as Head of the Architecture School and Dean of the Faculty from Professor Geoffrey Pearse. Other changes occurred as new courses were added when the Department of Quantity Surveying was incorporated within the School and in 1945 a Town Planning diploma for post graduate students was established (this was to expand and later become a department in its own right). Classes in Fine Arts were given as part of the School of Architecture since its inception in the 1920; the demand for not only more (and larger) courses in art theory, but also practical studies reached a pinnacle in 1957. This resulted in an independent Department of Fine Arts being established –similarly to Town Planning and Quantity Surveying, it also fell under the Department of Architecture.

With the growth of the department the facilities were becoming increasingly inadequate, as John Fassler mentioned in his 1948 yearly address: “It is only too apparent that widely scattered studios, lecture rooms and library mitigate against the essential spirit which is the soul of a training institution. And the lack of desirable facilities must hamper the development of the training offered. The School is in danger of becoming dismembered with students in one year of study being total strangers to those in another – a sad situation indeed.”

The university finally decided a purpose built building was needed and the commission for the building named after John Moffat was given to the staff of the Department of Architecture rather than just the Head of School. Fassler, in his role as Head, with Howie as a senior lecturer and his ‘right hand man’ were tasked with creating a team that was able to work together and incorporate the various individual philosophies and stylistic preferences. The staff themselves were able to determine the composition of the Team and what role each member played.

On the 3rd of August 1955 (nine months after the work was commissioned) John Fassler notified the University of the staff members participating in the design team: J. Fassler, W.D. Howie, G. Herbert, J. Morgenstern, J. Shunn and U. Tomaselli.

C. Pinfold had initially expressed interest and participated in the initial design, however, he decided not to partake. “The nominated consultants were Mr. M. Marcus, consulting Structural Engineer, and Mr. N.P. Smit, the University’s consulting Electrical Engineer.” Each member had “his own personality, temperament, experience and vision. They also had different skills to contribute, and sometimes saw the problem though the distorting lens of those particular aptitudes: to one the project was an artistic challenge, to another a technological opportunity this was seen as an asset and explored during the design stage of the project. The ultimate decisions were left to Fassler (as head of the design team), however, the final design did not depict the style Fassler was leaning towards (as can be seen from his earlier projects), and was not a style he took forward into his later work. The John Moffat is almost a style of its own that was drawn from the six team
members and how they interacted with each other’s individual styles. Fassler’s love of classical architectural detailing went against the principles of the International Style. The combination of Classical and Modernism resulted in a hybrid style that was based on the teachings of Le Corbusier and Leonardo Da Vinci (Renaissance Architecture). This is clearly seen in the motifs used in strategic places within the building – the Modular and the Vitruvian man.
Figure 4 - Original Lower Ground Floor Plan - Howie, W.D. (1959), page 18.
Figure 5 - Original Ground Floor Plan - Howie, W.D. (1959), page 19.
Figure 6 - Original First Floor Plan - Howie, W.D. (1959), page 21.
Figure 7 - Original Second Floor Plan - Howie, W.D. (1959), page 21.
The challenge that the design team undertook was to preserve the integrity of the context all-the-while creating something new.\textsuperscript{17} The architectural character, scale and proportions of the John Moffat Building derived from those of the existing buildings on the Universities campus, particularly the William Cullen Library. Howie wrote in a brochure for the opening of the building: "The introduction of the John Moffat building into an existing University campus determined the nature of its architectural character. It was felt that the building should be a harmonious addition to the University but that the planning and the detailed treatments should take advantage of contemporary technological methods...In the handling of the scheme in its broad and detailed aspects, the architectural treatment should be free from any features which might form part of passing architectural fashion."\textsuperscript{18}

The Architecture, Quantity Surveying and Fine Arts departments were to be inserted within the one building, each required its own identity all the while merging within the planning of the various spaces and circulation nodes. The process to design this building started with a schedule of accommodation that was explored through sketches and ideas by the design team. Following this the members compiled sketch plans either in pairs or individually. These plans have been lost, however, G Herbert recalls that they all had similar principles,\textsuperscript{19} with the best ideas being incorporated into the final sketch plan. "These included the set-back of the East Wing to create a forecourt and the arrangement of the exhibition foyer and lecture theatre suite, amongst others"\textsuperscript{20}

A plan and estimated cost was presented to the Building Committee on the 16th of March 1955, these were not approved and changes were suggested (the original plans have since been lost and with them the original design of the building). One document reason for not approving the plan was that the site was to be extended on the northern side beyond what was previously determined by the Committee and a new restriction added stating that the building was to be constructed no closer than 12 meters from the William Cullen Library. By September 1955 the team had revised the program and the plans to include the following ‘essential’ aspects:

- A 300 seat lecture theatre (to be known as the Dorothy Susskind\textsuperscript{21} Auditorium) this was to be used by not only the Architecture Department but the University as a whole in addition, the public – this multi-purpose use dictated its position within the building and its proximity to parking facilities.
- Two 60 seater lecture rooms (later revised to one 80 seater and one 40 seater).
- Exhibition spaces.
- Design studios (for the various disciplines).
- Crit rooms.
- Craft rooms.
- A centrally placed library that could be accessed by both the Fine Arts and Architecture Departments.
- A seminar room for 30 people.
- Material museum.
- Staff and administration offices.
- A drawing office for ‘Studio Seven’.
- A portico that acted as a entrance canopy, parking for staff and demarcated the west courtyard.

Figure 8 (opposite page): Entrance foyer with exhibition boards and curtains on the windows circa 1960. (University of the Witwatersrand Archive).

\textsuperscript{17} - Herbert, G. and Donchin, M. (2013), page 164.
\textsuperscript{18} - Herbert, G. and Donchin, M. (2013), page 186.
\textsuperscript{21} - Dorothy Susskind worked as the Chairman for the University Towns Festival in 1955 and raised funds for the University Appeal. (Howie, W.D. (1959), page 19).
Over the next few months the plans were revised and adjusted to improve the internal arrangements of the building and by April of 1956 the plans were deemed to be advanced enough to call for tenders to clear the site.22 A perspective of the building was drawn at this stage by John Fassler, it shows the eastern view of the "four storey building with a modular façade, capped by a prominent overhanging cornice. The two wings at right angles are anchored in a rectangular lift tower. Attached to the east face is a two-storey projection, containing six-bay colonnade flanked by a further three bays of a nondescript caricature"23 (see figure 10). Once the tenders for the site and the building came in it became apparent that some calculations had been overlooked during the redesign and the cost of the building exceeded the budget. The Building Committee gave the architects two choices, either reduce the cost or allocate space within the building for other faculties. The architects decided to reduce the costs and opted to remove the third floor from the design, in addition they chose to make adjustments to the treatment of the eastern façade. "The portico, reduced to three bays, now reads as an entry, and the foyer (below) and library (on the floor above) are given appropriate emphasis, both in scale and richness of surface..."24 (see figure 11). In June of 1956 these plans were once again submitted to the Committee and subsequently approved.

Regardless of the many debates regarding the stylistic vision of the building, the internal planning appears to have reached early consensus amongst the team members. This is seen to have stemmed from the "efficient planning of functional spaces (which) was a strong point of the School, emphasised in the design studios and a governing factor in the architectural practice of the teachers."25

The final plan comprised a basic T-shape with a fan attached to the body of the T.
- The north wing (head of the T-shape) had the studios, the seminar, crit rooms and associated staff accommodation. This location allowed the architectural studios to be lit from both sides and the arts studios to have south light with supplementary roof lights.
- The east wing contained the exhibition foyer with lecture theatres on the ground floor. The library with its controls and an ante-room providing Fine Arts with display facilities for illustrative material referred to in lecturers or special exhibitions, is given prominence in the scheme on the first floor level. The administrative offices, ancillary spaces, utility units and Materials Museum are situate on the second floor. The lower ground floor includes the Craft room so placed to facilitate the delivery of bulky materials and cleaning, since the floor is drained to an outlet for sluicing down.27
- The articulated fan shaped form on the south contained the Dorothy Susskind Auditorium, bellow this Offices for the Department of Town Planning, the staff drawing office and plant rooms complete the lower ground plan.
- Located on the west were the staff garages / portico which define the western courtyard.26

It is important to note, "the programme for the building was based on the annual intake of 40 students in Architecture and 25 in Quantity Surveying. Together with the 43 in Town Planning, this gave the Faculty a maximum of 320, while the Department of Fine Arts required accommodation for 45 students in practical classes and 270 in academic classes.28 The planning allowed for various access points into the building depending on who was entering. Students came in from the eastern or southern side via the pond and staff from the portico located on the west. The public were able to park on..."
the street to the west of the building (adjacent to the staff parking) and make use of the student entrances. The entrance located off the portico could double up as a client entrance for the ‘Studio Seven’ office.

The large-span ‘flexible’ building was constructed out of “a simple system of reinforced concrete columns and beams supporting floor slabs comprising ‘Shofco’\textsuperscript{29} precast pre-stressed beams with hollow block infilling over the uninterrupted spans of 33 ft. (10 meters).”\textsuperscript{30} The structure determining the openings and the proportions / rhythm / relationship was an underlying modular system - this was 5ft. 6in or in metric 1.68 meters.\textsuperscript{31} This can clearly been seen on the façades particularly through the positioning of the openings; “the proportions of these openings are slightly in excess of a double square and bear marked similarity with the solids and voids of the Central Block and the adjacent Library building, and occur repeatedly in subsidiary elements throughout the building.”\textsuperscript{32} Additionally the modular formed the framework of the design of the internal spaces, the desk locations in the studios, the layout of the office spaces, as well as the positioning of tables and book shelves in the library.

The entrance and exhibition foyer, with the lecture theatres were deliberately placed together and designed with generous lines on the ground floor (see figure 8). This was to facilitate the display of student works to the university as well as the public, allowing the students to interact with the other courses within the School and encourage public opinion and peer evaluation. The walls were covered with cloth pin boards to allow the drawings etc. to be easily pinned up and changed. The lighting in this area consisted of track lighting (to allow for maximum flexibility) to illuminate the walls (and the pin boards) while general lighting was through wall lights mounted on the columns. A small kitchen was installed in the crush foyer of the large 300 seater lecture theatre to cater for various types of events.

The library located on the eastern side of the first floor (at the base of the T-shape) received abundant morning light and the tranquil sounds of the water features in the pond beyond the windows (see figure 9). Internally there were numerous open shelves and a generous reading area with tables and chairs. At the ‘head’ of the T-shape, the studios were located on the ground, first and second levels. Here they were able to capture cross ventilation from the north to the south, the design took into consideration the requirements of students as individuals as well as working in groups. The staff and administration offices were located on the third floor (within the body of the T-shape) and were within easy access to the studios and lecture halls.

One of the architects W. D Howie stated the following about the building: “The general design represents a conscious pursuit of the thematic variation of the basic module, and a careful integration of all components with this modular theme. The thematic variations may be seen in the scale of the library unit with its related mosaics, in the paving’s and garden seats and in the fact that the cornice of the library unit and the theatre wing bear the same proportional relation to those surfaces as the main cornice does to the full façade. The projection of this cornice throws a strong definitive shadow on the sunlight surfaces, and by reason of its undercut profile and contained shadow it persists as a strong terminal definition on the shadowed elevations.”\textsuperscript{33}

\textsuperscript{29} - Structural Hollow Floor Co.
\textsuperscript{31} - Herbert, G. and Donchin, M. (2013), page 197.
The various decisions relating to the detailing and finishing of the building were discussed and debated by the team throughout the process. The main point of contention being that Fassler and other older members of the team had evolved their design styles from their early very ‘Le Corbusian’ teachings, while the younger members were “still loyal to the ethics of the father.”

The following questions arose, with arguments for and against each:
- “Didn’t Corbusian orthodoxy demand that functionally – differentiated – zones – the office wing, the studio wing, or the auditorium – be separated by articulated links, and not simply abutted one against the other?
- If ornament is a crime, than while the Leonardo and Le Coburier – derived patterns sand blasted on the plate glass doors were justified, because they stopped people walking unaware into the doors, weren’t the six red mosaic panels on the north façade were arbitrary addition to be deplored?
- If climate control was an imperative ... on the exposed north side of the studio tinted glass louvers were the solution to the sun penetration problem.
- If form follows function, than could a standard window design reflect the diversity of functional spaces within?”
- Additional debates arose to the detailing of the cornice and introduction of the plinth. The purist International Style architects wished to have the clean cut look of silhouetted boxes, while the more progressive architects wanted to create a link to the Renaissance palazzo.

Ultimately the end decision lay with Fassler as head of the design team, however, the final detailing of the building is said to be an amalgamation of all the teams styles. “It is not a design which, on his own, he would have produced, nor is it typical of his approach to architecture... The building is an organic whole, the result of a holistic process of design, and it is that quality of holism, where the whole is greater than the sum of the parts, that characterises true teamwork.”

The layout of the exterior was as important as the layout of the interior of the building. This was because the building had to work within the existing university context and infrastructure. The west courtyard was designed as an entrance courtyard on the lower ground level. The facings and kerb were laid in an off-while terrazzo finish, while the modular openings on the façade were accentuated with white windows and blue glass mosaic panels (and yellow cills). The paving comprised brushed concrete and bricks, which was emphasised by the lawn with its brick surround. The lawn was raised to aid in drainage problems associated with the hard shale ground of the site.

On the western façade the concrete grilles and wrought metal balustrades (in blue, silver and pale umber) emphasize the theme initiated in the repetitive window openings. On the surfaces where there are no openings or decorations the manner in which the terrazzo panels were placed reinforces the modular pattern and gives a sense of scale to the façades.

The landscaping surrounding the building appears to be the work of John Fassler, in particular the design of the pool located on the eastern side, “he fought valiantly throughout the process to retain the pool, even when under pressure to cut costs.” In an article on the university’s campus the following was said regarding the fountain. “Apart from the building’s

own pleasing façade, another aesthetic feature has been added to what was rather a dreary corner of the grounds – five fountains which cascade coolly at the entrance to the attractive foyer.” It was the intention of Fassler to create a precinct with in the University Campus through the use of the pool, fountains and benches.

The materials and finishes used throughout the building were to fulfil numerous criteria set out by the architectural team.
Figure 10: Perspective watercolour of the John Moffat Building by J. Fassler circa 1955.
Figure 11: Eastern Facade and Pond. (University of the Witwatersrand Archive - circa 1960s).
The building was required to demonstrate modernity, be suitable for everyday use, have a visual impact, scheme and assist the students and teachers in technical education.

The finishes on the exterior of the building were chosen for their “appearance and durability so as to avoid costly maintenance. The building is sheathed in precast combed terrazzo in a warm off-white shade which retains its colour even when wet. The glass mosaic spandrel panels, generally in a quiet shade of blue, with white windows relieved by the yellow pressed steel cills, form a pleasing contrast”41 (see figure 12).

Herbert noted that: “the thematic variation of the basic module opening is seen both in the large scale of the openings and in the design of the mosaic panels.”42 The offices are demarcated on the northern façade via a group of six red mosaic panels. The library on the east is via a broad mosaic pattern of pale blue lines on a honey coloured base, with dark brown and blue accents, offset by white glazed tiles.

The entrances from the forecourt (east - pond side) and walkway (south) are via gold and silver anodised aluminium doors.43 These were decorated with a sand-blasted patterns in Da Vinci’s Vitruvian man and Le Corbusier’s Modular man.44 The floors throughout the building were finished in a ‘Krommine’ marble type linoleum. The foyer or exhibition linoleum floor was designed in a “pattern of light grey squares having sequences of light blue and yellow accents in the centre and separated by dark grey strips, all in a dark blue marginal surround.”45 A small kitchen was installed in the crush foyer of the large 300 seater lecture theatre, this had a marble counter and ‘modern fold’ doors set into a travertine frame. The travertine was used to accent other walls with in the exhibition/foyer space.

The finishes in the 300 seater Dorothy Susskind Auditorium were meant to be hardwearing and impressive as it was a public as well as university space. Oak veneer panelling was used for the walls, while the standard tip up seats were constructed out of chrome plated steel frames with ‘Vynide’ covers in a light blue colour. The table tops and the lectern were constructed out of Klaat, whose honey colour complemented the grey linoleum floor. The oak wall panels were backed by one inch of felt to assist with the acoustics towards the back of the space. The ceiling was specifically shaped curving from east to west and in a reflective material; recessed louvered lights were inter-dispersed across its surface; these were placed on a dimmer switch to provide various intensities of lighting during presentations and enable students to take notes during lectures. The main lighting was provided by “rear cove and brackets, with spots for the front wall”.46 A ‘Nu-cite’ tempered glass chalk board sprayed with enamel (aluminium oxide abrasive) and fixed double screen made up the front of the lecture room with grills to facilitate the artificial ventilation.

The two other theatres were treated similarly, except that the seats were in a darker blue colour for the 80 seater and grey for the 40 seater. Corresponding With these seating colour changes the floors in the middle (80 seater) lecture room was a grey with asphalt tiles, while the tiles in the 40 seater were a tan colour.

The lettering used throughout the building in particular the foyer and entrances was “specially designed and carried out in

Figure 12 (opposite page): Eastern Facade and Pond circa 1965 - curtains in foyer and entrance lettering visible. (University of the Witwatersrand Archive).
gold anodised aluminium with enamel inserts in various colours according to the setting. The same lettering design was skilfully applied by the sign writer to the glass direction board. Elsewhere the door serial numbers and name panels are in cream on transparent plastic.\(^{47}\)

Curtains were used extensively throughout the building. The foyer or exhibition space has soft lace ones, while certain areas had custom dyed linings (to match the wall colours) and the House of De Haes of Holland and David Whitehead curtains prepared by John Piper.\(^{48}\)

The main circulation was via a centrally placed circular staircase located where the junction of the east west building met that of the north south (intersection point of the T-shape). Here the walls of the staircase were treated with a “special stippled plastic finish to avoid disturbing reflections otherwise apparent.”\(^{49}\) The stairs were a combination of cast in situ treads and precast risers, all in a grey-green terrazzo. Located at the base of the staircase was a specially designed mosaic by Cecily Sash.\(^{50}\) The staircase is said to be one of Fasslers’ features within the building, this along with the columns and their vertical stripes, derived from a visit to the Allianz Building in Munich.

Fassler designed the tables in the reading areas of the Library, with Tomaselli designing the built in furniture in the staff offices (see figure 13). The various components of the library were in constructed out of solid wood. The south wall was finished in slatted oak panelling and all the book shelves (also oak) were adjustable.

The shelves was designed to accommodate 10 000 volumes, many of those large folios. The tables were of a Sapele Mahogany whose colour was complemented by the dark blue upholstered chairs. An additional feature was the sound absorbing acoustic ceiling tile positioned above the space that was used as a reading area; the fluorescent light fittings were chosen for their dustproof properties. The columns within the library space were treated with the blue and white glass mosaic tiles and the floor in a complementary blue linoleum. Built in furniture was also designed and constructed out of Oak and Sapele Mahogany in the staff offices. All the wood was treated with cellulose sanding sealer and a wax finish.\(^{51}\)

The materials museum was specifically design to assist in teaching students about the various materials commercially available. These were donated by manufactures and suppliers and placed within a room located on the second floor, it was panelled in a pale grey peg-board (with Kiaat cornices) and contained matching shelves of varying sizes that were adjustable (‘sparring’ fittings were used).

The end walls of the studios were constructed out of face brick with different colours and bonds used in the various studios. Additionally the drawing desks were designed and built specifically so that they corresponded with the modular window mullions in the studios. Fluorescent fittings were placed in continuous strips to create even lighting over the work spaces. The studios on the second floor were used for the art students and contained windows located on the southern side of the building. Additional light come from south facing saw-tooth roof lights, which helped to illuminate the work...
area. “The structure comprises steel girders and frames to which the windows are fixed, carrying precast concrete units forming the ceiling and sloped surfaces. The light form the small windows on the north elevation is controlled by individual shutters. Individually switched fluorescent lights give artificial lighting control.” The crit rooms had a special absorbent ceiling panel and the same fluorescent lighting as the studio spaces.

The majority of the walls were finished in an eggshell enamel, while the walls in the craft rooms were finished with a P.V.A paint to assist with the cleaning of these surfaces. The choice of colours was debated by the architects and each space was decided upon based on its own merits. The majority of colours were mixed on site, resulting in numerous custom shades and “while the range of applied colours is considerable the effect is never aggressive.”

A survey of the finishes and their condition can be found in chapter four.

For the design team modernism and technology meant the same thing, throughout the building this concept was seam-
Figure 13: Internal view of Library circa 1960. (University of the Witwatersrand Archive).
Figure 14: Internal view of Second floor art studio. (Howie, W.D. (1959), page 24).
Some technically innovative building techniques were used throughout the structure. All three lecture rooms were required to be fully equipped for projections, have automatic blackout facilities and mechanical ventilation. “Standard Liesegang and 35mm Leica projectors with long-throw lenses provide various slides and book illustrations. The largest theatre has a Filomsound 16 mm cine projector, wire dual speakers, while an Bell and Howell silent projector is available for the smaller rooms.”54 The lecture theatres were meticulously planned as ‘machines for learning in’ the architects having learned much from the cumulative experience of Escom House, the Central Block and the Hillman Building.”55

The blackout blind system within the Dorothy Susskind Auditorium was a result of the architects wanting a space that could benefit from having natural lighting and not permanent darkness or electrical lighting as the Great Hall. The paneling was designed to be removable so to enable access behind to service the blinds. Due to this system the room required artificially ventilated and heating, this was achieved via grills placed in strategic positions around the seating area. The lectern was fitted with all controls to animate the blinds, ventilation, lights, speakers and 16 mm cine projector. Additionally an intercom was installed to communicate with the projection room at the rear of the lecture room.

On the northern façade the design team used tinted glass louvers, that were set deep within the recess of the windows to assist in the climatic control of sun entering into the building. The louvers evened out the light intensity throughout the rooms in addition to controlling the sun penetration. By making the louvers out of glass they allowed unobstructed views northwards and by setting them into the wall they allowed the façade to appear unobstructed (as well as protecting the glass louvers from hail).56

For the Crit Rooms a loosely compressed chip board with reduce glue content was created this comprised an attractive panel face and soft veneer to assist with the pinning up of work in this area. It was named and marketed as ‘Ray-décor’.

A special lock and master key system was used throughout the building; this allowed access to all staff communal areas as well as faculty specific spaces. “The inconvenience of having to open a locked door while carrying lecture material or a brief case lead to the use of the key-in-the-knob ‘Schlag’ equipment. Some 150 ‘Novo’ locksets, many with ‘Riviera’ escutcheons were used. Special ‘Assa’ swing-door locks were used on the theatre and library doors.”57

The main technical innovation appears to have been the under floor heating that was designed by Howie. In order for the most flexibility to be archived in the various spaces it was decided to use electrical under floor heating throughout the building. This allowed furniture to be placed in numerous configurations, heating would be felt throughout a space and additionally spaces could be heated individually (not centrally) enabling the offices to be heated during the vacation periods. It was decided that the floor heating cables be limited to 150°C, this was based on research carried out on concrete slab exposure to heat. The electrical consultants performed calculations and “on final installation it was found that tem-

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peratures were as calculate while providing excellent comfort conditions in the building and not causing ceiling cracks.”

The system was the non-withdrawable kind where wires/cables were placed directly onto the floor slabs (via a system devised on site) and covered with a minimum of 30 mm of screed. “The cables were taken to terminal boxes build into the outside walls at skirting level at intervals of approximately 15 feet (4.5 meters). The terminal boxes were connected to distribution boards by means of rubber insulated wire in conduits cast into the concrete slab. At the distribution boards miniature circuit breakers were used. The boards were in turn connected by means of paper insulated cables to the transformer supplying the heating system, located in the basement substation.” In order for the installation to be effective, the area to be heated on one circuit had to be clear, the wires laid and immediately the screed placed over. By using the system of various circuits, if a future problem arises only that area needs to be ‘chipped’ out and the wires replaced.

The floor heating system was found to be very effective and no cold draughts were experienced across the floors. However, in the staff offices and Art studios (where nude models were used) additional supplementary fan heaters were installed.
1921
Department of Architecture established.
Fell under the Faculty of Engineering.

1940
Establishment of Faculty of Architecture.

1945
Department of Town Planning introduced.

1948
Professor John Fassler takes over as Head of Architecture.

1957
Department of Fine Arts created.
John Moffat Building constructed.
Bryer, M. (1977), page 29: "The programme for the building was based on the annual intake of 40 students in Architecture and 25 in Quantity Surveying. Together with the 43 in Town Planning, this gave the Faculty a maximum of 820, while the Department of Fine Arts required accommodation for 48 practical classes and 270 in academic classes" (which only constituted lectures). - Howie, W.D. (1959), page 17.

1975
Fine Arts moved to Central Block - arts library moved to the Wartenweiler Library (severing ties between the two departments).

1990
New studio block constructed (Henry Payne and Associates)- existing studio wings divided into office space.
circa. 1998
Establishment of the School of Architecture and Planning.

2000
Digitalization of architecture -- introduction of computers and the conversion of obsolete spaces such as the Material store into a Cad Lab.
Other changes include the Fassler Gallery on the Ground Floor and the SARCHi office in the staff offices.

2010 - 2012
All new degrees implemented.
New Building Management building constructed - departments relocate.

2014
New security requirements.
The current accommodation requirements far out pass those which the building was designed for with a total of 67 staff member and 704 students in the various departments.

Figure 16 (opposite page): Entrance / exhibition foyer - 2013.
Basement (Lower Ground) Floor Plan depicting four phases of change.

- Enclosing of lobby space
- New prefabricated structure, transforming open courtyard
- Enclosing of part of open craft room
- Portico altered with walls and ramps
- 'Studio Seven' offices reconfigured

Key:
- Black: 1957 - 1975
- Brown: 1975 - 1990
- Blue: 1990 - 2000
- Green: 2000 - 2014
Ground Floor Plan depicting four phase of change.

Key:
- 1957 - 1975
- 1975 - 1990
- 1990 - 2000
- 2000 - 2014

open studio spaces partitioned and converted into offices

prefabricated structure extends to ground floor
First Floor Plan depicting four phase of change.

- Open studio spaces partitioned and converted into staff offices
- Enclosing of lobby space
- Reconfiguration of library reception area
- Increase of shelving in library spaces (departing from original design)

Key:
- 1957 - 1975
- 1975 - 1990
- 1990 - 2000
- 2000 - 2014
Second Floor Plan depicting four phase of change.

- Minor division of open studio space
- Enclosing of lobby space
- Material store converted into computer laboratories
- Original reception area converted into offices
- Original staff room converted into offices

Key:

- 1957 - 1975
- 1975 - 1990
- 1990 - 2000
- 2000 - 2014
1957 - 1975 First Floor Plan

1975 - 1990 First Floor Plan

1990 - 2000 First Floor Plan

2000 - 2014 First Floor Plan
Figure 17 (opposite page): Southern stair well - breeze soleil glass window. (© Candice Keeling 2013).

Figure 18 and 19: Images by H. le Roux of materiality in John Moffat foyer.
Figure 20: Images by H. le Roux of materiality in John Moffat second floor studios.

Figure 21: Images by H. le Roux of materiality in John Moffat central staircase.
Figure 22: Images by H. le Roux of materiality in John Moffat library.
<table>
<thead>
<tr>
<th>Material / Fitting / Fixture</th>
<th>Historical References</th>
<th>Current Situation</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete / Terrazzo Facing</td>
<td>The concrete shell of the building is clad with a precast combed terrazzo in an off white shade. This material was chosen due to its ability to retain its colour even when wet - Howie, W.D. (1959), page 20.</td>
<td>Some spalling has occurred due to rusting of fixings and some areas have damage and chips in the finish. Parts have been painted in a cream colour that is starting to bubble and peel. Concrete has been used to fill in damaged areas (this was noted on the eastern façade). Additionally staining has formed under cills or lips.</td>
<td>The terrazzo finish should be cleaned and the holes repaired with a matching finish (not concrete as has been done in the past). - Repairs should be done in the near future while cleaning of the surface is aesthetic.</td>
</tr>
<tr>
<td>Mosaics (external)</td>
<td>The openings on the façades were accentuated with glass mosaics in various patterns and colours, however, plain blue panels are the most prominent - Howie, W.D. (1959), page 20.</td>
<td>The majority of the lower level mosaics appear to be in a good condition, while those located on the upper levels have tiles that have fallen off.</td>
<td>The remaining mosaics should be inspected and existing tiles made secure - this should be done immediately. Following this the missing tiles should be replaced with matching glass tiles.</td>
</tr>
<tr>
<td>Modern additions</td>
<td>None.</td>
<td>Over the years numerous additions have been added to the building such as new signage, burglar bars, disabled access and air conditioners. New adjacent structures have also influenced how the building is approached and the surrounding views. The main change has been the studio block in the early 1990s and the bridge connecting the two buildings.</td>
<td>The unnecessary signage could be removed and future connections should take into account the existing structures, particularly the John Moffat Building. This is an aesthetic change.</td>
</tr>
<tr>
<td>Discolouration of façade</td>
<td>None.</td>
<td>There are various forms of discolouration throughout the building. These include mould, graffiti and rust.</td>
<td>The surfaces should be cleaned of all graffiti and marks - aesthetic change. However the mould and any biological growth should be dealt with immediately.</td>
</tr>
<tr>
<td>General maintenance issues</td>
<td>None.</td>
<td>General maintenance is required throughout both the interior and exterior of the building. Aspects to look at included repairing damaged components and finishes.</td>
<td>The general maintenance of the building should be looked at in the near future before it deteriorates further.</td>
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<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
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<td></td>
<td>North Façade.</td>
<td><img src="image1" alt="Image" /> <img src="image2" alt="Image" /> <img src="image3" alt="Image" /></td>
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<td></td>
<td>East Façade.</td>
<td><img src="image4" alt="Image" /> <img src="image5" alt="Image" /> <img src="image6" alt="Image" /></td>
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<tr>
<td></td>
<td>View of portico and studio annex.</td>
<td><img src="image7" alt="Image" /> <img src="image8" alt="Image" /> <img src="image9" alt="Image" /></td>
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<td></td>
<td>West Courtyard entrance.</td>
<td><img src="image10" alt="Image" /> <img src="image11" alt="Image" /> <img src="image12" alt="Image" /></td>
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<tr>
<td></td>
<td>Window in west courtyard.</td>
<td><img src="image13" alt="Image" /> <img src="image14" alt="Image" /> <img src="image15" alt="Image" /></td>
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<tr>
<td>Material / Fitting / Fixture</td>
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<tr>
<td>Architectural elements or spaces</td>
<td>Pond and seating - Fassler's design of the water element and how it responds to the surroundings Herbert, G. and Donchin, M. (2013), page 196 and 197. Staff Garage - Mentioned in the text - Howie, W.D. (1959), page 18. West Courtyard - A description of the materials are mentioned in the text - Howie, W.D. (1959), page 18.</td>
<td>The pond is still a big feature towards the eastern side of the building and is in a decent condition. The staff garages have disappeared and only the structure remains - losing the impact it originally had. During the 1990s a new prefabricated structure was erected in the Western courtyard destroying the original open space.</td>
<td>The pond requires constant maintenance, however, this appears to be done on a regular basis. The staff garage falls under general maintenance of the facade of the building. The Western courtyard paving and space needs to be rethought.</td>
</tr>
<tr>
<td>Waterproofing - roof, verandas and structure</td>
<td>None.</td>
<td>There is a waterproofing problem where the lecture theatre block connects to the building and foyer. Damage is visible in the small kitchenette located on the ground floor. Additionally the various flat roofs have water collecting and not draining correctly in areas.</td>
<td>This is an immediate concern and should be looked at as soon as is possible.</td>
</tr>
<tr>
<td>Glass panes</td>
<td>None.</td>
<td>Over the years the glass panes have been replaced as they have broken with new glass - they hold little value within the context of the building.</td>
<td>The glass does not hold much value and can be replaced. There is no reason this cannot be with a more energy efficient glass such as double glazing.</td>
</tr>
<tr>
<td>Sun louvers (northern side)</td>
<td>Tinted glass louvers were recessed into the walls on the northern side of the building, these were to assist in the climatic control within the inner spaces. The use of glass allowed unobstructed views northwards to towards Parktown ridge; the recessing of the louvers provided protection from hail and allow them to blend into the façade - Herbert, G. and Donchin, M. (2013), page 191.</td>
<td>The majority of tinted glass louvers still remain, however, they are severely neglected and require maintenance on the metal structure, additionally the putty has become old, brittle and is failing out - compromising the glass and integrity of the louvers.</td>
<td>The louvers require immediate maintenance and the putty should be replaced before further glass panes fall off of the building. The missing glass panes should be replaced with ones to match the existing.</td>
</tr>
<tr>
<td>Window frames</td>
<td>The windows were fixed to the precast concrete frame of the building and contribute to the reading of the modular system used throughout the structure - Howie, W.D. (1959), page 24.</td>
<td>Over the years the window frames have been repainted numerous times and the result is that they do not close properly. Additionally some parts have been damaged and rust has occurred.</td>
<td>The window frames can be stripped back to the metal, sealed and painted. This will improved their ability to close and therefore, the energy efficiency of the building. The rusted areas should be dealt with before further damage occurs.</td>
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<td>Priority</td>
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<td>North Façade.</td>
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<tr>
<td></td>
<td>Peeling paint.</td>
<td><img src="image4" alt="Peeling paint" /> <img src="image5" alt="Peeling paint" /></td>
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<tr>
<td></td>
<td>West courtyard paving.</td>
<td><img src="image6" alt="West courtyard paving" /></td>
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<td></td>
<td>Flat roof over meeting room.</td>
<td><img src="image7" alt="Flat roof" /> <img src="image8" alt="Flat roof" /></td>
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<tr>
<td></td>
<td>Foyer window.</td>
<td><img src="image9" alt="Foyer window" /></td>
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<td></td>
<td>Eastern façade.</td>
<td><img src="image10" alt="Eastern façade" /></td>
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<td></td>
<td>Entrance doors.</td>
<td><img src="image11" alt="Entrance doors" /></td>
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<tr>
<td>Material / Fitting / Fixture</td>
<td>Historical References</td>
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</tr>
<tr>
<td>Window putty</td>
<td>None.</td>
<td>The putty has become brittle over the years and is detaching from the window frames. In a few places this has resulted in the glass falling out of the frames.</td>
<td>The window putty throughout the building needs to be inspected and replaced. Due to concern that glass will fall out of frames, this should be seen to immediately.</td>
</tr>
<tr>
<td>Decorative</td>
<td>There is no mention in the texts of the coloured glass wall that faces west or details of the direction panel located between the lift openings. However, the entrance doors into the foyer with the sand-blasted patterns in the controversial Da Vinci's Vitruvian man and Le Corbusier's Modular man are extensively cited - Herbert, G. and Donchin, M. (2013), page 191 to 192 and Howie, W.D. (1959), page 21.</td>
<td>The coloured glass wall has lost some of the panels and only one of the entrance doors with the sand-blasted pattern remains. However, the direction panel is undamaged.</td>
<td>The direction panel and coloured glass window should remain, with new glass to match inserted into the wall where glass has fallen out. The sand-blasted detail should be reinstated on the three doors where the glass has been replaced. Aesthetic.</td>
</tr>
<tr>
<td>Lights</td>
<td>Two main types of lighting were used in the foyer area. Track lighting providing maximum flexibility to illuminate the walls (pin boards) and general lighting mounted on columns similar to that in the main lecture theatre - Howie, W.D. (1959), page 23.</td>
<td>Over the years the lighting has been modified and the original lights replaced with modern versions.</td>
<td>The track lights used fulfill their purpose and are not unattractive. The lights attached to the columns are poorly fitted and badly chosen for a wall application. New lights made to match the original design should be installed. Aesthetic.</td>
</tr>
<tr>
<td>Pin boards</td>
<td>Pin boards were placed on the brick walls in the foyer, these were constructed out of a loosely compressed chip board with a reduce glue content. This was named and marketed as Ray-decor - Howie, W.D. (1959), page 25.</td>
<td>The pin boards appear to be the original boards, albeit a different colour than when the building was completed.</td>
<td>These appear to be in a good condition and she be maintained.</td>
</tr>
<tr>
<td>Mosaic columns</td>
<td>The columns with their vertical stripes (and the central circular staircase) were features added by Fassler which derived from a visit to the Allianz Building in Munich - Howie, W.D. (1959), page 22.</td>
<td>The mosaic columns have some damaged around the light fittings and have accumulated some dirt build up over the years.</td>
<td>The columns require a good cleaning and possible maintenance where applicable.</td>
</tr>
<tr>
<td>Priority</td>
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<td>North Façade.</td>
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<tr>
<td></td>
<td>Coloured glass window.</td>
<td><img src="image4.jpg" alt="Glass Window Image" /> <img src="image5.jpg" alt="Glass Window Image" /> <img src="image6.jpg" alt="Glass Window Image" /></td>
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<td></td>
<td>Entrance doors.</td>
<td><img src="image7.jpg" alt="Entrance Doors Image" /> <img src="image8.jpg" alt="Entrance Doors Image" /> <img src="image9.jpg" alt="Entrance Doors Image" /></td>
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<td></td>
<td>Replacement column light.</td>
<td><img src="image10.jpg" alt="Column Light Image" /> <img src="image11.jpg" alt="Column Light Image" /> <img src="image12.jpg" alt="Column Light Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concrete frame on western facade.</td>
<td><img src="image13.jpg" alt="Concrete Frame Image" /> <img src="image14.jpg" alt="Concrete Frame Image" /> <img src="image15.jpg" alt="Concrete Frame Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General steel frame.</td>
<td><img src="image16.jpg" alt="Steel Frame Image" /> <img src="image17.jpg" alt="Steel Frame Image" /> <img src="image18.jpg" alt="Steel Frame Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Entrance / crush foyer.</td>
<td><img src="image19.jpg" alt="Entrance Foyer Image" /> <img src="image20.jpg" alt="Entrance Foyer Image" /> <img src="image21.jpg" alt="Entrance Foyer Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Putty falling out of frame.</td>
<td><img src="image22.jpg" alt="Putty Image" /> <img src="image23.jpg" alt="Putty Image" /> <img src="image24.jpg" alt="Putty Image" /></td>
<td></td>
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<tr>
<td></td>
<td>Information panel.</td>
<td><img src="image25.jpg" alt="Information Panel Image" /> <img src="image26.jpg" alt="Information Panel Image" /> <img src="image27.jpg" alt="Information Panel Image" /></td>
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<tr>
<td>Material / Fitting / Fixture</td>
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<tr>
<td>Lecture room doors</td>
<td>None.</td>
<td>Some of the doors have been modified over the years as the locking mechanisms and pivot points have suffered wear and tear. These have been changed with little regard to the original material.</td>
<td>The damaged doors should be repaired - particularly where metal sheets have been placed. This is an aesthetical consideration. General maintenance should be undertaken.</td>
</tr>
<tr>
<td>Ironmongery of doors</td>
<td>A master key system was used for the majority of locks throughout the building for ease of access for staff members while, a special ‘Assa’ swing-door lock was used on the theatre and library doors - Howie, W.D. (1959), page 25.</td>
<td>The original ironmongery remains, however, changed have been made to many of the doors as additional stronger security was required.</td>
<td>The numerous changes should be removed and a standard approach determined for dealing with old locks and how to proceed forward. The damaged doors should then be repaired. Aesthetical.</td>
</tr>
<tr>
<td>Anodized glass door frames</td>
<td>The entrances from the forecourt (east) and walkway (south) are via gold and silver anodised aluminium doors - Howie, W.D. (1959), page 21</td>
<td>The door frames appear to have remained.</td>
<td>The frames appear to be in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Travertine wall</td>
<td>The travertine was used to accent walls throughout the main (exhibition) foyer and crush foyer spaces - Howie, W.D. (1959), page 22.</td>
<td>The travertine walls are in a reasonable condition.</td>
<td>The stone appears to be in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Linoleum floor</td>
<td>The floors throughout the building were finished in 'Bronxmine' a marble type linoleum. In the foyer the linoleum was laid in an elaborate pattern using a variety of colours - Howie, W.D. (1959), page 22.</td>
<td>The original linoleum floor remains, however, it is showing numerous signs of use and the colours appear to have faded over the years.</td>
<td>The floors in the foyer have discoloured and marked over the years, however, due to their historical importance they should be cleaned and maintained in their current state.</td>
</tr>
</tbody>
</table>
A1 lecture doors.

Corner detail.

Insensitive maintenance.

Numerous additions to locking mechanism.

Detail of frame.

View of entrance door.
<table>
<thead>
<tr>
<th>Material / Fitting / Fixture</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Timber panelling</td>
<td>Oak veneer panelling was used for the walls in the main auditorium; this was backed with one inch of felt to assist with the acoustics. The panelling was designed to be removable so to enable access to service the blinds - Howie, W.D. (1959), page 22.</td>
<td>The timber panelling remains in tact, albeit with a few nicks and scratches.</td>
<td>The panelling is in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Lectern</td>
<td>The lectern was constructed out of Klaat, and fitted with controls to animate the blinds, ventilation, lights, speakers and 16 mm cine projector - Howie, W.D. (1959), page 22.</td>
<td>The original pieces are still within the rooms and in a fair condition.</td>
<td>The lecterns appear to be in a fair condition - a good cleaning and general maintenance should be undertaken. The main auditorium lectern does not work as when it was first built - if modern connection need to be installed - these should be done so that they do not damaged the original material.</td>
</tr>
<tr>
<td>Built-in furniture</td>
<td>All of the three lecture theatres table tops were constructed out of Klaat, while standard tip up seats constructed out of chrome plated steel frames with 'Vynide' covers comprised the chairs. The three theatres all had different coloured seats which complemented the varied linoleum flooring - Howie, W.D. (1959), page 19.</td>
<td>The original desks are in a fair condition, most of the chairs are the original, with a few replacing those that have broken.</td>
<td>The table tops appear to be in a fair condition - a good cleaning and general maintenance should be undertaken. The chairs require a thorough check and are to be repaired where applicable. If new fabric is required this should match that of the original chairs.</td>
</tr>
<tr>
<td>Blinds</td>
<td>A black out blind system was used in the lecture theatres, this was a result of the architects wanting a space that could benefit from having natural lighting and not permanent darkness or electrical lighting - Howie, W.D. (1959), page 22.</td>
<td>None of the blinds remaining are those of the original design, and there are various kinds in the three rooms.</td>
<td>The various types of blinds used serve the required purpose but are unsightly. The original system failed and perhaps this should be looked at and suggestion made on how to update the historical system - with new blinds installed throughout the three rooms. Aesthetically.</td>
</tr>
<tr>
<td>Terrazzo tread</td>
<td>The stairs were constructed with a combination of cast in situ treads and precast risers, all in a grey-green terrazzo - Howie, W.D. (1959), page 22.</td>
<td>The terrazzo tread has been damaged primarily on the edges.</td>
<td>The stairs are in a fair condition, the damaged areas are not able to be repaired with a matching material. This should be left as it is and a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
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<td>Signage removed in entrance foyer.</td>
<td><img src="image1.jpg" alt="Image" /></td>
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<td>Signage above A1 lecture room in travertine.</td>
<td><img src="image2.jpg" alt="Image" /></td>
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<td>Lift surround and cladding.</td>
<td><img src="image3.jpg" alt="Image" /></td>
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<td>View of foyer from south entrance.</td>
<td><img src="image4.jpg" alt="Image" /></td>
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<td>View of foyer from north.</td>
<td><img src="image5.jpg" alt="Image" /></td>
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<td></td>
<td>Door to projector room in A1.</td>
<td><img src="image6.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Detail of linoleum.</td>
<td><img src="image7.jpg" alt="Image" /></td>
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<td></td>
<td>Detail of side panelling in A1.</td>
<td><img src="image8.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Back wall of A1.</td>
<td><img src="image9.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Door to projector room in A1.</td>
<td><img src="image10.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lectern in A1.</td>
<td><img src="image11.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lectern in A1.</td>
<td><img src="image12.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desk in A2.</td>
<td><img src="image13.jpg" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Desks in A1.</td>
<td><img src="image14.jpg" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>A1 lecture room.</td>
<td><img src="image15.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desk in A1.</td>
<td><img src="image16.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Desk in A2.</td>
<td><img src="image17.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A1 lecture room.</td>
<td><img src="image18.jpg" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Desk in A1.</td>
<td><img src="image19.jpg" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Material / Fitting / Fixture</td>
<td>Historical References</td>
<td>Current Situation</td>
<td>Recommendations</td>
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<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>Handrails</td>
<td>None.</td>
<td>The handrail is in a fair condition.</td>
<td>The handrail appears to be in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Mosaics (basement level)</td>
<td>Located at the base of the staircase was a specially designed mosaic by Cecily Sash - Howie, W.D. (1959), page 22.</td>
<td>The mosaic was repaired a few years ago and is in a good condition.</td>
<td>The mosaic was repaired recently, however, it should be cleaned and maintained on a regular basis.</td>
</tr>
<tr>
<td>Lighting</td>
<td>None.</td>
<td>The lighting throughout the staircase is varied and does not appear to be that which was originally placed within the space.</td>
<td>There is no uniformity in the lights used within this space. A decision should be taken and linked to that of the foyer area. Aesthetical.</td>
</tr>
<tr>
<td>Partitioning</td>
<td>None.</td>
<td>The partitioning was added over the years since the studios moved to the new building and the art faculty moved to new premises.</td>
<td>This was a necessary change, however, as the building changes yet again these can be demolished and the spaces opened again.</td>
</tr>
<tr>
<td>Bespoke timber fittings</td>
<td>Built in furniture was also designed by Tomasselli and constructed out of Oak or Sapele Mahogany. It was treated with a cellulose sanding sealer and wax finish - Howie, W.D. (1959), page 22.</td>
<td>Some of the original furniture still remains in the offices.</td>
<td>What is left of the original furniture and fittings appears to be in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
<td></td>
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<tr>
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<tr>
<td></td>
<td>Detail of blind in A2.</td>
<td><img src="image1.png" alt="Image" /> <img src="image2.png" alt="Image" /> <img src="image3.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Side detail to staircase.</td>
<td><img src="image4.png" alt="Image" /> <img src="image5.png" alt="Image" /> <img src="image6.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detail of handrail.</td>
<td><img src="image7.png" alt="Image" /> <img src="image8.png" alt="Image" /> <img src="image9.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location at base of staircase.</td>
<td><img src="image10.png" alt="Image" /> <img src="image11.png" alt="Image" /> <img src="image12.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wall light.</td>
<td><img src="image13.png" alt="Image" /> <img src="image14.png" alt="Image" /> <img src="image15.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Material / Fitting / Fixture</td>
<td>Historical References [see historical text for more information]</td>
<td>Current Situation</td>
<td>Recommendations</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>Ironmongery</td>
<td>A special lock and master key system was used throughout the building; this allowed access to all staff communal areas as well as faculty specific spaces - Howie, W.D. (1959), page 25.</td>
<td>The majority of locks have been replaced over the years and new security added to doors and entrance areas.</td>
<td>Depending on how the building is secured in the future these additions can possibly be removed. Aesthetical.</td>
</tr>
<tr>
<td>Furniture</td>
<td>The tables in the reading areas of the library were designed by Fassler out of Sapele Mahogany, these were matched with dark blue upholstered chairs - Howie, W.D. (1959), page 22.</td>
<td>The original furniture remains, however, the chairs have been recovered with a brown material.</td>
<td>Generally the various pieces of furniture appear to be in a fair condition, however, many of the chairs are unstable and require fixing – a good cleaning and general maintenance should be undertaken on both the loose and fixed furniture. This should be completed in the near future to prevent further damage or deterioration.</td>
</tr>
<tr>
<td>Mosaic columns</td>
<td>The columns within the library space were treated with blue and white glass mosaic tiles - Howie, W.D. (1959), page 22.</td>
<td>The mosaic columns are in a fair condition.</td>
<td>The columns require a good cleaning and possible maintenance where applicable.</td>
</tr>
<tr>
<td>Panelling</td>
<td>The various components of the library were in wood; the south wall was finished in slatted oak panelling and all the book shelves (also oak) were adjustable - Howie, W.D. (1959), page 22.</td>
<td>The wooden panelling is intact and remains unchanged.</td>
<td>The panelling is in a fair condition – a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Ceiling</td>
<td>Sound absorbent acoustic ceiling tiles were positioned above the reading area - Howie, W.D. (1959), page 22.</td>
<td>Based on the historical text the ceiling appears to be that originally installed.</td>
<td>As the layout of the library remains, the ceiling layout is applicable. This should be retained and maintenance undertaken if required.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Doors on lower ground floor. Built in shelves on southern wall.</td>
<td><img src="image1.jpg" alt="Image of doors and shelves" /> <img src="image2.jpg" alt="Image of southern wall" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lose furniture in Library.</td>
<td><img src="image3.jpg" alt="Image of library furniture" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detail of desk and chair.</td>
<td><img src="image4.jpg" alt="Image of desk and chair" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partitioning in first floor studio.</td>
<td><img src="image5.jpg" alt="Image of studio partition" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reception area in ground floor studio.</td>
<td><img src="image6.jpg" alt="Image of studio reception" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detail of mosaic column.</td>
<td><img src="image7.jpg" alt="Image of mosaic column" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>View looking northwards.</td>
<td><img src="image8.jpg" alt="Image of northern view" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>View looking southwards.</td>
<td><img src="image9.jpg" alt="Image of southern view" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original studio board on second floor.</td>
<td><img src="image10.jpg" alt="Image of studio board" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Built in furniture on second floor.</td>
<td><img src="image11.jpg" alt="Image of second floor furniture" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detail of board on second floor.</td>
<td><img src="image12.jpg" alt="Image of board detail" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors on lower ground floor.</td>
<td><img src="image13.jpg" alt="Image of doors" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Built in shelves on southern wall.</td>
<td><img src="image14.jpg" alt="Image of southern wall shelves" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lost furniture in Library.</td>
<td><img src="image15.jpg" alt="Image of library furniture" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detail of desk and chair.</td>
<td><img src="image16.jpg" alt="Image of desk and chair" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partitioning in first floor studio.</td>
<td><img src="image17.jpg" alt="Image of studio partition" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reception area in ground floor studio.</td>
<td><img src="image18.jpg" alt="Image of studio reception" /></td>
<td></td>
</tr>
<tr>
<td>Material / Fitting / Fixture</td>
<td>Historical References</td>
<td>Current Situation</td>
<td>Recommendations</td>
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</tr>
<tr>
<td>Roof lights</td>
<td>The Studios on the second floor were constructed with saw-tooth roof lights. The windows were fixed to the steel girders and structural frame - Howie, W.D. (1959), page 24.</td>
<td>The roof lights remain unchanged.</td>
<td>The roof lights appear to be in a fair condition - a good cleaning and general maintenance should be undertaken.</td>
</tr>
<tr>
<td>Tiles</td>
<td>The design of the original tiles matches the description of the tile layout used by Fassler in the New Dental School and Hospital in 1943 - Fassler, J. (1943), page 3–12.</td>
<td>Some of the bathrooms have the original tiles, while others have new ones laid in a conventional pattern.</td>
<td>All original tiles should be retained and maintenance undertaken where applicable, furthermore, these require a good cleaning. The modern bathroom tiles appear to be in a good condition and general cleaning and maintenance is suggested.</td>
</tr>
<tr>
<td>Fittings</td>
<td>None.</td>
<td>Very few of the original fittings remain, such as the urinals in the first floor bathroom outside of the Library.</td>
<td>Only one bathroom appears to have retained the original fittings (urinals). These are to be retained. Cleaning and general maintenance should be undertaken particularly to that older fittings.</td>
</tr>
<tr>
<td>Windows</td>
<td>None.</td>
<td>Some of the window panes have been replaced as they have broken over the years and the frames repaired as needed.</td>
<td>The glass does not hold much value and can be replaced. There is no reason this cannot be with a more energy efficient glass such as double glazing. This does not include the coloured or decorative panes. Where panes have fallen out, these should be replaced with new matching panes.</td>
</tr>
<tr>
<td>Lighting</td>
<td>Various types of lighting were used throughout the building (those used in the foyer has already been mentioned). The main theatre had a curved roof with recessed louvered lights and side wall sconces that matched those in the foyer. The studios, offices and library were equipped with fluorescent light fittings that provided more evenly dispersed lighting - Howie, W.D. (1959), page 22.</td>
<td>Many of the fluorescent tube lights have been changed since the building was constructed as well as many of the other lights. The only original lights appear to be those in the main lecture room.</td>
<td>Some of the older lights require maintenance and cleaning. The new fittings can be replaced as required.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
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<tr>
<td></td>
<td>Original door in library.</td>
<td><img src="image1" alt="Image" /></td>
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<tr>
<td></td>
<td>Detail of panelling.</td>
<td><img src="image2" alt="Image" /></td>
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<td></td>
<td>Light switches in panelling.</td>
<td><img src="image3" alt="Image" /></td>
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<tr>
<td></td>
<td>Beams and skylights.</td>
<td><img src="image4" alt="Image" /></td>
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<tr>
<td></td>
<td>Mens bathroom on lower ground floor.</td>
<td><img src="image5" alt="Image" /></td>
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<tr>
<td></td>
<td>Urinals on lower ground floor.</td>
<td><img src="image6" alt="Image" /></td>
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<tr>
<td></td>
<td>Original urinals on first floor.</td>
<td><img src="image7" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original tiles on lower ground floor (in Fassler pattern).</td>
<td><img src="image8" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New tiles on lower ground floor (northern side).</td>
<td><img src="image9" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original tiles on lower ground floor (northern).</td>
<td><img src="image10" alt="Image" /></td>
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<tr>
<td></td>
<td>Ceiling in reading section.</td>
<td><img src="image11" alt="Image" /></td>
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<tr>
<td></td>
<td>Two ceiling types.</td>
<td><img src="image12" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ceiling in stack section.</td>
<td><img src="image13" alt="Image" /></td>
<td></td>
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<tr>
<td></td>
<td>Sawtooth skylights.</td>
<td><img src="image14" alt="Image" /></td>
<td></td>
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<tr>
<td></td>
<td>Original door in library.</td>
<td><img src="image15" alt="Image" /></td>
<td></td>
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<tr>
<td></td>
<td>Detail of panelling.</td>
<td><img src="image16" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Light switches in panelling.</td>
<td><img src="image17" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Beams and skylights.</td>
<td><img src="image18" alt="Image" /></td>
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<tr>
<td></td>
<td>Mens bathroom on lower ground floor.</td>
<td><img src="image19" alt="Image" /></td>
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<tr>
<td></td>
<td>Urinals on lower ground floor.</td>
<td><img src="image20" alt="Image" /></td>
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<tr>
<td></td>
<td>Original urinals on first floor.</td>
<td><img src="image21" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Original tiles on lower ground floor (in Fassler pattern).</td>
<td><img src="image22" alt="Image" /></td>
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<tr>
<td></td>
<td>New tiles on lower ground floor (northern side).</td>
<td><img src="image23" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Original tiles on lower ground floor (northern).</td>
<td><img src="image24" alt="Image" /></td>
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<tr>
<td></td>
<td>Ceiling in reading section.</td>
<td><img src="image25" alt="Image" /></td>
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<tr>
<td></td>
<td>Two ceiling types.</td>
<td><img src="image26" alt="Image" /></td>
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<tr>
<td></td>
<td>Ceiling in stack section.</td>
<td><img src="image27" alt="Image" /></td>
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<tr>
<td></td>
<td>Sawtooth skylights.</td>
<td><img src="image28" alt="Image" /></td>
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<tr>
<td></td>
<td>Original door in library.</td>
<td><img src="image29" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Detail of panelling.</td>
<td><img src="image30" alt="Image" /></td>
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<tr>
<td></td>
<td>Light switches in panelling.</td>
<td><img src="image31" alt="Image" /></td>
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<tr>
<td></td>
<td>Beams and skylights.</td>
<td><img src="image32" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Mens bathroom on lower ground floor.</td>
<td><img src="image33" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Urinals on lower ground floor.</td>
<td><img src="image34" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Original urinals on first floor.</td>
<td><img src="image35" alt="Image" /></td>
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<tr>
<td></td>
<td>Original tiles on lower ground floor (in Fassler pattern).</td>
<td><img src="image36" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New tiles on lower ground floor (northern side).</td>
<td><img src="image37" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original tiles on lower ground floor (northern).</td>
<td><img src="image38" alt="Image" /></td>
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<tr>
<td></td>
<td>Ceiling in reading section.</td>
<td><img src="image39" alt="Image" /></td>
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<tr>
<td></td>
<td>Two ceiling types.</td>
<td><img src="image40" alt="Image" /></td>
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</tr>
<tr>
<td></td>
<td>Ceiling in stack section.</td>
<td><img src="image41" alt="Image" /></td>
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<tr>
<td></td>
<td>Sawtooth skylights.</td>
<td><img src="image42" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>Historical References</td>
<td>Current Situation</td>
<td>Recommendations</td>
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<tr>
<td>---------</td>
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</tr>
<tr>
<td>Paint colours</td>
<td>Various colours and paint finishes were used throughout the building, these were reliant on the use of the spaces. Examples of paint include enamel, P.V.A and a special stippled anti-reflective finish for the stair case area. The majority of spaces were painted in an eggshell colour, however, colours that were mixed on site were chosen for some walls - Howie, W.D. (1959), page 22 and 23.</td>
<td>The majority of the building is an off white colour with some strong paint colours appearing every now and then - it is unclear if any of these are the original colours.</td>
<td>It is unknown if any of the mixed on site colours remain in the building, this should be explored further should changes be made to rooms and spaces.</td>
</tr>
<tr>
<td>Electrical installations</td>
<td>None.</td>
<td>Many electrical installations have been added over the years. The majority of these have occurred without regards to the building or the manner in which they were installed. These are predominantly surface mounted additions.</td>
<td>In most cases this is unsightly and detracts from the original design intentions. A general approach needs to be established to deal with the additions and future electrical work.</td>
</tr>
<tr>
<td>Security additions</td>
<td>None.</td>
<td>Various kinds of security installations have been added throughout the building to prevent unwanted entry into certain spaces.</td>
<td>Depending on how the building is secured in the future these additions can possibly be removed or changed to a uniformed approach. Aesthetical.</td>
</tr>
<tr>
<td>Curtains</td>
<td>Curtains were used extensively throughout the building. The foyer or exhibition space has soft lace curtains while certain areas had curtains with custom dyed linings (to match the wall colours) - Howie, W.D. (1959), page 23.</td>
<td>No curtains remain, however, some spaces have blinds.</td>
<td>Various types and kinds of blinds have been used throughout the building. A standard window treatment or set of guidelines needs to be established and implemented when spaces are refurbished. It would be nice to reinstate the foyer lace curtains. Aesthetical.</td>
</tr>
<tr>
<td>Heating</td>
<td>Underfloor heating was placed in all spaces. This allowed heat to be felt throughout rooms regardless of furniture placement and during vacation periods only the rooms needing heat to be turned on. The staff offices and Art studios (where nude models were used) required supplementary fan heaters - Howie, W.D. (1959), page 26.</td>
<td>The original heating system has become too expensive to run.</td>
<td>A new way to heat the building needs to be explored. Part of this is how to make the building more energy efficient.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
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<tr>
<td></td>
<td>Electrical board on lower ground floor.</td>
<td><img src="image-url" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orange and grey on ground floor.</td>
<td><img src="image-url" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Numerous light fittings.</td>
<td><img src="image-url" alt="Image" /></td>
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</tr>
<tr>
<td>Security gate to offices on second floor.</td>
<td></td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td>Burglar bars to windows on western facade.</td>
<td></td>
<td><img src="image-url" alt="Image" /></td>
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</tr>
<tr>
<td>Burglar bars on lower ground floor.</td>
<td></td>
<td><img src="image-url" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Burglar bars to windows on western facade.</td>
<td></td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td>Burglar bars on lower ground floor.</td>
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<td><img src="image-url" alt="Image" /></td>
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<td></td>
<td>Electrical board on first floor.</td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td></td>
<td>Blue of beams.</td>
<td><img src="image-url" alt="Image" /></td>
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<td></td>
<td>South and North façade respectively.</td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td></td>
<td>Off white on walls.</td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td></td>
<td>Wire in cladding in entrance foyer.</td>
<td><img src="image-url" alt="Image" /></td>
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<td></td>
<td>Electrical board on lower ground floor.</td>
<td><img src="image-url" alt="Image" /></td>
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<td></td>
<td>Windows in south atrium.</td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td></td>
<td>Orange and grey on ground floor.</td>
<td><img src="image-url" alt="Image" /></td>
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<tr>
<td></td>
<td>Numerous light fittings.</td>
<td><img src="image-url" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td>Material / Fitting / Fixture</td>
<td>Historical References</td>
<td>Current Situation</td>
<td>Recommendations</td>
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<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>Flooring</td>
<td>The majority of floors throughout the building were finished in a 'Krommire' marble type linoleum. Other materials used included tiles and travertine - Howie, W.D. (1959), page 22.</td>
<td>Some parts of the original linoleum have been replaced over the years, as well as, some changes in other floor finishes.</td>
<td>The majority of linoleum should be retained with a general cleaning and maintenance. However, certain areas may need to be replaced, this should be determined on a case by case basis.</td>
</tr>
<tr>
<td>Signage</td>
<td>The lettering used throughout the building was &quot;specially designed and carried out in gold anodised aluminium with enamel inserts in various colours according to the setting. The same lettering design was skilfully applied by the sign writer to the glass direction board. Elsewhere the door serial numbers and name panels are in cream on transparent plastic&quot; - Howie, W.D. (1959), page 23.</td>
<td>Throughout the building there are numerous types and kinds of signs. These appear to have been added bit by bit, with disregard of the whole of the building or the existing signage. Additionally unsightly florescent strips have been placed on the staircase.</td>
<td>A standard system should be employed throughout the building and implemented when the areas are refurbished / changed. This should be based on the original lettering and what is remaining of it. The original lettering is to be retained.</td>
</tr>
<tr>
<td>Priority</td>
<td>Approach</td>
<td>Images</td>
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<tr>
<td></td>
<td>Office on ground floor.</td>
<td><img src="image1.jpg" alt="Image" /></td>
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<td></td>
<td>Office on second floor.</td>
<td><img src="image2.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Office on lower ground floor.</td>
<td><img src="image3.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Heater on second floor (art studio).</td>
<td><img src="image4.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Signage throughout the building.</td>
<td><img src="image5.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Floor to bathroom.</td>
<td><img src="image6.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Linoleum on ground floor.</td>
<td><img src="image7.jpg" alt="Image" /></td>
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<tr>
<td></td>
<td>Change of material between staircase and landing.</td>
<td><img src="image8.jpg" alt="Image" /></td>
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</tbody>
</table>
4.1 Value of the building.

After fifty-seven years, the architecture of the John Moffat Building still fulfils its design intention and the objectives of the design team. Which was to “produce a work of architecture which sat well in its context, respecting its neighbours, a work not of an ephemeral fashion, but one which would age with grace, and framework of accommodation practically efficient and spiritually congenial, in which teachers could educate, and coming generations develop intellectually and creatively.”

The building is significant as an architectural artefact, through the innovative materials used, the way in which it was designed and even the technical innovations formulated during its construction. This can be seen in the:

4.1.1. Innovative materials and building techniques used – examples of these include the underfloor heating, the blinds in the lecture rooms and the pinboards.

4.1.2. Hardwearing Materials – the finishes to the exterior were chosen for their durability and ability to maintain their appearance. While those in the public spaces, such as the main auditorium were chosen to resist heavy traffic and wear and tear.

4.1.3. The collaborative design approach – based on the teachings of Walter Gropius and the precedents set in the architectural faculty; the John Moffat is almost a style of its own that was drawn from the six team members and how they interacted with each other’s individual styles.

4.2. Capacity for change.

From the onset the building was designed for change and adaptation in order to accommodate the requirements of future generations. The section depicting the changes over time (building analysis) gives a good indication on how this has happened over the years based on four major periods in the John Moffat’s lifespan.

However, there are consequences to this change:

4.2.1. Spaces have become fragmented over time, losing the original design intentions.

4.2.2. Open spaces or areas have become divided and no longer used for their intended purpose.

4.2.3. Since the building was constructed there have been advancements in how to approach climatic consideration. This has also been compounded by how the maintenance has been performed over the last fifty years. A clear example of this is the windows, which do not close and lose large amounts of heat during the cooler months and the underfloor heating which is now too expensive to utilise.
4.3. Decision making frameworks.

"As a didactic as well as a social environment the building worked well"\(^{62}\) – this can still be the case today. This document provides an understanding of how the building came about, what makes it an important structure and the areas that require immediate attention in order to maintain it. Beyond the long term plans for the building there are aspects that require immediate repair and maintenance throughout both the interior and exterior of the structure. These should be dealt with as soon as possible and not only when areas are refurbished or changed.

How the building is conserved needs to be carefully considered, various factors influence this decision, however, some are more important than others:

4.3.1. A uniformed approach on how to refurbish the building needs to be complied. This can include how to deal with aspects mention in the material chapter such as the electrical conduits, heating requirements, new fire laws and security issues.

4.3.2. How the public, historical users (old students and staff members), current users and future users perceive the building.

4.3.3. Can the conservation of the building be used to teach the current and future students about issues relating to modernism architecture and its preservation?

4.3.4. Maintaining the intended use of the building – that of a working building – and not transforming it into a museum to modernism in South Africa.

4.4. Scenarios for alternation.

The John Moffat building once again is at a point where a transformation is required. How these changes occur should reflect the historical use of the building - whether it is by going back to a period in time or following the precedent of change. Some scenarios have been proposed:

4.4.1. Refurbishment of key spaces back to their original / intended purposes, starting with the exhibition foyer and the three lecture rooms.

4.4.2. Looking at the historical design of the building and converting it back to using the intended teaching spaces – the studios in the north wing – and in the process revive the notion of studio teaching.

4.4.3. Clarifying how the Modern Movement envelope and services can be re-modernised to fit into the digital age in which it now finds itself.

4.5 Further research and outputs.

The restoration of John Moffat, if done with proper expertise and skill, could grow expertise within the School as well as be material proof of that expertise. It is essential that this research potential is maximised through the whole process. Suggested areas for additional work in relation to the existing knowledge resources of the School are:

4.5.1 Articulating the relationship between architecture and other disciplines in the School and on campus through spatial design.

4.5.2 Relating restoration to energy and resource sustainability.

4.5.3 Relating restoration to contemporary design.
Documents:


Other:


University of the Witwatersrand Archive – Senate House.

All images are by author unless otherwise stated.
The exhibition foyer and lecture theatre were thus set on the ground floor, the shops with its entrance and an anteroom providing Free Arts with display facilities for limestone material related to its patrons or special exhibitions, a given prominence in the foyer on the first floor level while the administrative offices, gallery, store and museum were arranged on the second floor level.

The lower ground floor includes a Craft room so placed to facilitate the delivery of bulky materials and materials from the store is located on the south side of this floor. Office branches and facilities are provided on the basement floor and a room on the basement floor is room for the storage of building materials and furniture.

The form of the building produced a series of semi-enclosed and enclosed outdoor spaces which lend themselves to imaginative landscaping. The pool, fountain and steps on the front floor are intended to form a garden within the Casa Plan to which visitors can relax between lectures.
TYPISATION

The introduction of a new building into a Campus of traditional elements and desired spaces presents the question as to whether the design should reflect the "classic" orientation, adhering strictly to the "classical" arrangement, or whether it should be designed with considerations of its setting, considering the influences of the architectural context and the specific requirements of the new building.

The approach taken by the architect was to create a new building that would be harmonious with the existing campus, while also maintaining its own distinct identity. This was achieved by designing the building in a way that it would complement the surrounding structures.

The exterior of the building is characterized by the use of traditional materials and detailing, such as the wooden facade and the stone paving. The interior spaces are designed to be flexible and adaptable to the needs of the users, with a focus on natural lighting and open spaces.

The overall design is a reflection of the architect's goal to create a modern building that is in harmony with the classic traditions of the campus.

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FIRST FLOOR PLAN

SECOND FLOOR PLAN

SECOND FLOOR PLAN

LA ARCHITECTURAL RECORD, MARCH 1969

LA ARCHITECTURAL RECORD, NOVEMBER 1969

LA ARCHITECTURAL RECORD, MARCH 1969
THE DOROTHY STANTON ALHAMBRA.

The Dorothy Stanton Alhambra, designed by L.A. Arch. Architect—Richard, November 1939.

Two tiers of seats accommodate both the number of persons using the lecture theatre as well as exhibitions. The theatre is designed for use during daytime hours only. Seating and other features are in line with the latest trends in interior decoration, as well as being functional. The seats are upholstered with heavy fabric in various colors to suit the needs of the various groups using the theatre. The lecture theatre can accommodate up to 500 persons comfortably.

The Alhambra Theatre is being developed as an important asset to the local community, and is equipped for both stage and film presentation. The auditorium is designed to meet the needs of the local community, and is equipped for both stage and film presentation. The seating arrangement is designed to provide optimal viewing conditions for all sections of the audience.

The Alhambra Theatre is designed to be flexible and adaptable to various uses, including lectures, conferences, and film presentations. It is equipped with the latest technology to ensure high-quality sound and visual presentations. The stage area is large enough to accommodate various theatrical productions, while the seating arrangement is designed to provide optimal viewing conditions for all sections of the audience.

The Alhambra Theatre is equipped with state-of-the-art lighting and sound systems, ensuring high-quality presentations. The stage area is designed to meet the needs of various productions, while the seating arrangement is designed to provide optimal viewing conditions for all sections of the audience. The Alhambra Theatre is designed to be flexible and adaptable to various uses, including lectures, conferences, and film presentations.
This is a page from a document discussing various technical features of a building. The text is not legible, but it appears to be a detailed technical description of the building's design and construction, possibly including lighting, structural elements, and other architectural details. The page contains diagrams and illustrations, which are not visible in the text provided. The content is likely to be of interest to专业人士 in architecture, engineering, and construction.
The problem of having one approximately 1,000 feet of cable from a small to a large building was severe. The cable was to be run through a series of large openings in the building and then through a series of smaller openings in the building. The cable was to be laid flat and supported by wooden planks on the floor, as in the building. The cable was to be pulled through by manpower, as in the building.

The solution was to use a series of small, lightweight, flexible cables. The cables were to be laid flat and supported by wooden planks on the floor, as in the building. The cable was to be pulled through by manpower, as in the building.

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Working as a Team: 
From the Transvaal Group to the John Moffat Building
Gilbert Herbert

INTRODUCTION
In the 1950s, the University of the Witwatersrand's Faculty of Architecture and Town Planning, and the School of Architecture, its staff and its students, were involved in the design of the John Moffat Building, built in the late 1950s as the home of the University of the Witwatersrand's Faculty of Architecture and Town Planning, against the background of an ethos of cooperation and teamwork which characterized the School of Architecture, its staff and its students. We also look at the close ties between the School and the small band of practitioners who pioneered the Modern Movement, an overlapping alliance initially known as the Transvaal Group.
THE SCHOOL OF ARCHITECTURE AND THE TRANSVAAL GROUP

When I was a freshman in 1942 I entered the School of Architecture—then located in the imposing neo-classical Central Block of the University of the Witwatersrand. It was already the staff of legend, the focus of the cultural revolution, architecturally, the leading force of avant-garde architecture outside of Europe. That year the School of Architecture at the University of the Witwatersrand was a private institution. The principal lecturer, Stanley Pearson, and the young lecturer, Dave Distin Mortensen.

Dave Distin Mortensen (1903–1942), born in the Cape Province but educated in Johannesburg, enrolled in the degree course in Architecture at the University of the Witwatersrand in March 1923. His progress as a student was chequered, interrupted by his mobility to pass the required course in mathematics, switching to the academically less rigorous Diploma course, then back to the Degree course when the mathematics requirement was dropped, and finally his final year in 1928. This stumbling career ended triumphantly with his winning of the A.S. Furse Prize for originality in design. His subsequent academic career, as a charismatic lecturer and a scholar, was brilliant, and his research was rewarded with the first master's degree in architecture (1939) and the first doctorate in architecture (1941) in South Africa. His academic studies were reinforced by this experience of overseas travel, on a students' tour (accompanied by his friend Gordon McIntosh) in the winter of 1935–36, and with Werner Hansson in 1938, where at Stuttgart, with Hendrichs' Schacken Sour and the Wesenhofsteading they had an experience, experimental, familiar with all the work of the time. In 1938 Mortensen was in Europe once again, and in Paris met Le Corbusier with whom he discussed his work during the summer vacation.

MARTIENSEN AND THE TRANSVAAL GROUP

Fig 4.1 Professor DE Pearse

Mortensen had just been appointed to the staff of the School. Pearson and Mortensen were well acquainted, as the young man had worked in Pearson's office during the summer vacation.

This chapter has been written by Gilbert Herbert, who wishes to insert this personal note: "It has been my practice, when writing an academic paper, to avoid the use of the first person. This chapter is an exception to my general custom. This is the reason I am more personal in the story for much 1961, when I resigned from the staff at the School, an episode of the first person in which I was involved in the story. The period 1961–1962, when I resigned from the staff at the School, an episode of the first person in which I was involved in the story. The period under discussion was as a student and then a teacher from 1961–1962 and was also one of the architects in the School's staff of which I was a part of the job. Ultimately, for a short period, I knew the building from the other perspective, as a teacher discussing students' work, over the drawing board, in its lecture theatres, or researching in its library, and as an architect working in its collaborative workspace, Studio Seven."
THE COLLABORATIVE INTERACTIONS IN THE ARCHITECTURAL DESIGN PROCESS

...doubt which of the two cast a giant shadow, and which worked in the shade. In this, Le Corbusier—like Frank Lloyd Wright—was the towering individual who had helpers and disciples, but never real owners in the creative act. Now while modern movement in South Africa, Marentjie lacked the egoism of the master, in which South African architecture evolved was that of a movement whose founder was that of a consensus, not a formal association but a loosely constituted alliance of kindred spirits which Le Corbusier dubbed the Group of Ten. Marentjie, but his colleagues were happy with the flexibility of their ad hoc associations. In collaboration culminating in the design of the John Moffat Building, at the core of the Transvaal Group was a group exclusive; three Marentjie, Norman Hanson, and Gordon McIntosh, a fairly small intermediate category, whose most important members were John Fassler, Bernard Cocke and Duncan Hove, and a younger group, all School of Architecture students, including Monte Breyer, Kurt Jonus and Roy Kantzsch.

This group was characterized by its team spirit and group solidarity. While this was generated and encouraged by Marentjie, the philosophy of teamwork did not derive from Marentjie’s mentor, Le Corbusier, but rather from the relationship of the Transvaal Group to Group. This was an informal one. By definition, the first modern work associated with the Transvaal Group, the 1942 Mackay house, was designed by Marentjie and his group. Looking for international recognition, the approval of the South African architect, and the Group received early in its history, and the Grupo was considered as an insipid spirit of the group. However, it was also a difficult task for Group to maintain its position, and to be successful in the South African design world. In later years, this ethos was not sufficient to maintain the Group’s standing, and the Grupo was considered as an insipid spirit of the group. However, it was also a difficult task for Group to maintain its position, and to be successful in the South African design world.
founded in 1925. On entering the School I was soon aware of the rich history of achievement of this Society. Under Kurt Jonas, its dynamic chairman, it had initiated two legendary events. The first was the Congress and Exhibition of Abstract Art held in 1937, which was concerned with establishing the essential unity of all the arts, including architecture, in terms of an abstract aesthetic—a very German concept. This was followed by an ambitious Town Planning Congress in 1938, for which the students prepared plans for a model native township for 30,000 inhabitants, and the Transvaal Group, a new business centre for Hyde Park. The School continued well into the next decade with its presentation of major exhibitions, to name a few: ‘Rebuilding South Africa’ in 1943, the exhibit, showing the South African approach to housing in a larger ‘National Housing Exhibition’ organised by the US Office of War Information and the South African Institute of Architects, the comprehensive ‘Architecture in South Africa Today’ opened by the Mayor of Johannesburg in the De Beers Hall in August 1946, and ‘The Art of Architecture’ in 1948. The time-consuming preparation of these exhibitions was carried out with the full support of the teaching staff, and often with the cooperation of the profession. The Society also initiated several series of public lectures not only on South African architecture, but on topics such as Native Housing, Contemporary Russian Architecture, Art and Architecture, Art and Engineering, or Russian Culture and Architecture. It also organised major symposiums—often in association with the Institute of Architects.

Finally, there was the students’ contribution to the South African Architectural Record. The monthly journal was officially the organ of the Transvaal Institute of Architects, but in practice it was very much a School magazine. We shall deal with it again, when we consider its production as a cooperative staff enterprise, but at this point in our discussion it is relevant to stress the students’ role. Not only did student work appear annually, but the lectures sponsored by the Student Society were held on a more intellectual content. In addition there was a specific student section, the monthly Students Forum, whose material reflected valuable essays on historic buildings to correspondence on National Housing and an interview with Hanswitt Fry.

Not only did the collaboration of staff and students characterise the more traditional areas of academic activity—lectures, exhibitions, publications—but it extended to some less usual channels. The first was a product of the times: in the 1940s South Africa was heavily involved in the war, with its forces engaged in East and North Africa, then in the Italian campaign. Many students—I amongst them—volunteered for service and enlisted in the Rand University Training Corps, as an interim measure before going into the regular army. Prines, who was second-in-command of the corps, explained its purpose and methods. In 1949 the University was asked to recruit students for various branches of the army and air force. Training took place every Saturday morning at Milner Park and lectures were given in the evenings twice a week. In January and July the different units went to the various military centres for training. Most of the architectural students went into the Engineering Corps. We had weekly training sessions in the fields across from the campus, where we learnt such arcane skills as making machine gun emplacements or laying waterfields and in the long vacations we went for extended periods to regular military camps: the Engineering Corps base at Spion Kop, and the camp for boys at Voortrekkerhoop. Our immediate officers were two of our teachers, Capt. John Fassler and Lt. R. Dunlop Howie.

The camaraderie which existed between soldiers, and the intimate relationship with officers who we were well known to us. From the design studies and lecture theatres, contributed to the sense of unity which characterised the School.

On campus the School undertook combined operations of another sort. A programme of practical building experience was initiated, and for several weeks each year, we were cut out of projects and budgets—staff and students worked side by side constructing small buildings to our own design or down at the sports fields: a brick-built scoring box at the cricket grounds, or steel-and-concrete pavilions in the style of Stilte van der Hooghe for the tennis courts. Shoulders to shoulder, staff and students laboured together, digging foundations, mixing concrete by hand, erecting scaffolding and laying bricks—the latter a Fassler specialty.

During the war the School of Architecture was a small department, with less than a hundred architectural students and a limited staff. During the whole period of my studies (1942-1946) we only taught the core subjects (design, construction, architectural history and urban planning) by only two architects: Professor Prines, Dr. Martinussen (the senior lecturer) and John Fassler, and Duncan Howie. This tight-knit group (diminished by the death of Martinussen in 1942) was only expanded after the end of the war, when returning service-men swelled the intake of students, and in the years 1946-47 some new lecturers were appointed, including those most relevant to the John Muffly story.
Even in this expanded form, the staff of the Architectural Department remained relatively small, especially as the number of architectural students by 1948 had grown significantly to 264. One of the consequences of the limited size of this group of teachers was that personal relationships on the whole were close and the older students expected to be treated with respect, and cooperation—professional and intellectual—became a norm. This, of course, was fortuitous, because the enforced intimacy could equally have led to stifling, hiding and subplotting. Many of the teachers and their wives visited each other’s homes, participated in their celebrations, and gladly attended each other’s public lectures and exhibitions. Some of us, reinforced by the more intellectually-minded professionals such as Norman Hannah and Roy Koenen, met regularly (usually at Professor Foster’s house, once over a weekend at a colleague’s farm) as an informal discussion group to debate cultural issues of the day. As professional architects we served together on committees of the Transvaal Provincial Institute of Architects.

ACADEMICS AND PROFESSIONAL PRACTICE: A QUESTION OF BALANCE

At this time, the University’s policy in relation to private practice was that full-time members of the academic staff could practice on a modest scale, but were not permitted to maintain an independent external professional office. In other words, understanding that the architects on their staff needed to maintain their professional skills in real-world situations, the University allowed the academic staff to undertake projects, but only to the extent that these did not interfere in
any way with their commitment to full time work. Within those parameters, on those rare occasions when a member of staff received a commission he could not handle by himself, there were two courses open to him: to collaborate with a colleague, or with an outside firm. For modest commissions, in-house colleagues collaboration became a norm, and many smaller jobs were carried out in this way. We shall look at some examples, when we discuss such ad hoc partnerships between members of the John Morris team, prior to the undertaking of that major project.

A close framework was set up for these associations, with the establishment of what was called Studio Seven, which provided drafting space in which staff could carry out their professional work. This was an ingenious solution which kept commercial activity on campus, but separate from the academic facilities. In the post-war era, when accommodation was at a premium, Studio Seven was located in a separate part of the TSA, one of the temporary halls which housed the students. Design studios. Later, as we shall see, more generous spaces for Studio Seven were included in the programme for the John Morris Building, the School's new home.

For larger commissions, requiring the support structure of an established professional office, association with an existing practice was often the chosen path. In general, staff members did not have a private office of their own, and if they conducted a modest private practice it was one room understanding it was usually from their own homes. Collaboration with outside firms usually came at the latter's initiative, and ranged from residential buildings, in which larger projects which were usually under taken off-campus, with administration and supervision usually the responsibility of the commercial partner. We shall look at an example of such an ad hoc association between a member of staff and an outside practice, one taken from my own experience, before we deal with two major cases, the one unique (the design of a commercial project, Escom House, by Professor Pearse and his colleagues, the other general and enduring, the role of academic staff in the design of University buildings. I worked in association with Nathan Fink (the Finkelstein of Hansom-Tomkins-Finkelstein) on two occasions. Both were large projects for the design of the Oudsthoorn Synagogue, where I worked with John Morris. On one occasion he was offered the commission. This was possibly on the strength of his previous experience with cinema design, but another reason perhaps was that he had previously worked professionally for the client, W.J. Pienaar. His daughter Denise Scott Brown, the well-known architect, recalls her mother was at the time architectural school for a couple of years, and got to know many of the heroes of the Trafalgar Group. When she married, she hired her old friends, Hansom-Tomkins-Finkelstein, to design the Lakishk house. It was probably Hansom who was responsible for the lounge design, but it was Finkstein who signed the official drawings as the owner's architect. At Fink's Invitation, I became his associate architect, and in this role designed the Cinema Theatre, did the working drawings, and all the details. During the design process Fink maintained contact

with the client, and took over the main burden when it came to the realization of the Cinema project. For instance, he handled the technical problems, dealt with the requirements of the City Engineers Department, checked the sight lines, managed the contract, coordinated the consultations, and supervised the construction.

ESCOM HOUSE: JOHANNESBURG, 1935

Before we look at the University projects in which design the School of Architecture was involved, we must deal with a particularly significant building undertaken by Pearse and his colleagues, not for the University but for a large quasi-governmental organization, the Electricity Supply Commission (Escom). The Escom House experiment in collaboration was unique, in the sense that it involved a commercial client outside the academically sanctioned framework. The circumstances in which Pearse and some of his University colleagues became involved in the design of the Escom office tower, at the time the most prominent building in Johannesburg, are not clear. The design history of this prestigious 21-storey building involved three stages. Preliminary plans were prepared by the Commission, which subsequently formed the basis of the scheme prepared by Mr. H. R. Rogers Cooke. Ultimately the project was carried out with Professor G.M. Pearse and his staff as consultants, after extensive revisions had been made to the interior and exterior treatment of the building. P. Rogers Cooke, a well-known Johannesburg architect, had in the 1930s been responsible for some of the major theatres in Johannesburg, Pretoria, Cape Town and Durban. The most impressive, the Colonnades in Johannesburg of 1933, was an eclectic structure split into two parts, a monumental Egyptian temple-like structure, and a splendid auditorium, which was later regarded as the flagship of the African Consolidated Theatres chain. In 1935 Cooke's design for Escom had taken form, and a splendid water tower perspective by H.L.O. Phillips was exhibited at the annual South African Academy. Then, for reasons that are not immediately apparent, but go beyond the scope of this study, Cooke's connect with the project severed when construction according to his design had already begun, and had reached foundation level. The new architects were committed to retaining the existing column layout. When Pearse took over the project late in 1935, he called upon his University colleagues to work with him. John Fink headed the special design office where, under Pearse's direction, he prepared the working and detail drawings. He was joined by Bernard Cooke (the brother of Rogers Cooke) to act as design team. The design team, under Pearse's direction, undertook the task of designing the Escom House. The project was divided into two main stages: the site preparation and the main building. The site preparation involved the construction of the main structure and the external works. The main building was divided into two main sections: the office block and the服務 block.
This too is a 24-storey reinforced concrete structure—the tallest in the USA when opened in 1958—and was the first high-rise air-conditioned office building of its kind. Rogers Cooke designed its main external distinction was the monumental entrance designed by Mies van der Rohe, which brings to mind not only the entrance to Guggenheim Museum but also the entrance designed for a Magistrates Court submitted for competition by Mies and Fassler in 1934. Despite the involvement of three of these three individuals in the design process, this is not a Miesian-Pavilions project, and the formal treatment owes nothing symmetrically on a central axis, dominated by the impressive Central Block. The history of the founding of the University and the design and erection of its first buildings has been scrupulously recorded and it is not necessary to recapitulate that story here. We shall, however, name the architects responsible for the design of the early buildings on campus—of all the teams, that of E.M. Powers and E.J. Cowan working in association with W. Emsley and S. Williamson—and shall be looking at the Central Block, for it plays a significant role in the account that follows.

At the beginning of the 1930s the imposing façades of the Central Block, with its dominant portico of eight Corinthian columns, was little more than a shallow edifice screening a temporary structure behind, which provided the principal accommodation—the administration, the departments of Geography and Law, the Anthropological Museum, and the Library—until such time that funds could be raised for the completion of the permanent building. In December 1919 a disastrous fire destroyed the central portion of this building and the temporary structures behind, leaving only the façade intact. Two consequences relevant to our story ensued. There was an immediate imperative to replace and rehabilitate the contents of the library and build a new structure to house it, and as an essential need to fill the vacuum behind the remains of the gutted Central Block with a permanent building. It was these two projects that saw the beginning of a process that brought Peirce and the School of Architecture together with the University architects in the designing of the buildings on the campus.

THE UNIVERSITY BUILDINGS: THE INVOLVEMENT OF PEARSE AND MEMBERS OF THE TEACHING STAFF

The University projects we shall be discussing were examples of collaboration of a comprehensive kind, and an enduring nature. From project to project not only did the names of architects recur, albeit in various combinations, but the work was
for the same client, it demanded a working relationship with the official University architects, it often involved university colleagues as professional in-house consultant engineers, and several of the buildings were constructed by the same contractor, John Barrow and Sons.39

The University Library, 1933

The building to house the new University Library (from 1975 called the William Cullen Library) was designed in 1933 by the official University architects, Enslow and Williamson and Cowen Powers and Ellis, with input by the Librarian, Mr. J. Finnie. Pearce and his staff were not professionally involved with this University project, but nevertheless had a significant input in the design. Pearce, who had been in America on a Carnegie Corporation Grant, explained what was a somewhat delicate situation:

Soon after my return I was asked by the university to assist in the design of the University Library. As the university architects Messrs. E. W. Enslow and J. H. Cowen had been appointed to design the building I found it very difficult to interfere but I managed to persuade them to adopt my proposal and design for the main reading room and the licences, mezzanine and southern façades, dealing with these in a classic manner to harmonise with the other buildings instead of using red brick as they had proposed.40

Apart from mentioning that Fassler designed some of the furniture, Pearce does not indicate that the staff of his department was involved in the Library project. However, according to Fassler’s daughter Maria Fassler Kamstra (herself an architect), her father played a significant, acknowledged role in its design. As a first year graduate, she writes, he demonstrated his versatility in designing a Deric (actually Ionik) columned peristyle and classical façades and thoroughly modern reading and
stock room to the new university library. Faust produced a dazzling perspective of the main reading room, with its magnificent mural, and the planners published an elevation which appeared to be from the same hand.

Pears reviewed an article documenting the building, in which he took the opportunity to see the Librarian in his office for his perspicacity in suggesting that the new building is "better than the architect how to design a library." The article criticizes the library's decision to place the main reading room on the second floor, instead of on the ground level, as was originally proposed. Pears briefly noted the "unusual simplicity" of the internal details and fittings, with simple steel tables and shelves, but he was more interested in the University's decision to include a "Sower Students' Common Room," furnished by the students themselves. The furniture, having been designed by Mr. J. F. Pauley, of the department of architecture, the lower and upper chairs are covered with a golden brown hide, the writing tables faced to the walls, are of several woods and are faced with chrome-plated steel supports. The long table, also of chrome-plated steel, is finished in red leather and has a polished finish.

This article is in a way a statement of intent. It communicates the University's decision to continue the classical character of the campus, commending the fact that in the University Library, an attempt has been made to harmonize the building with the existing buildings on the site, as well as making it fit for its purpose, and to find a new solution to an old problem. The design is of a spacious and dignified manner, with an open porch at the main entrance, and is appropriate, for all its relations to his own design. But his enthusiasm for Pauley's modern furniture is a pointer to the future, the way he thinks the University should go.

In the Library building, with its classical proportions, antae, and porticoes, does indeed show respect for its context, the classical axes of the campus, responding to its character to the dominant Central Block, and acknowledging its place in the hierarchy of the site by the modest size. The interior detailing of the main floor is not as elaborate as that of the Central Block, and the building's more restrained, classical aesthetic is evident in the roofline. Several University publications have suggested that the design was modeled on the Petit Théâtre at Versailles, and this has been picked up by most of the recent commentaries. But the design is not, as it is often described, "a classical Revival". It is, however, more architectural, refined, and well-proportioned, and is today greatly admired.

Apart from its interior, the building of the Library is significant for our story, for two points of view. It is situated along the central axis of the campus, and is an extension northwards of the classical character of the site. Its most striking feature is that it is one of the few buildings on the University campus that is not designed by the architect. As a result, the Library is treated as an architectural feature, and is not considered to be part of the main campus.

Pears notes that the Library has a "lot of character," and that it is "a very good piece of work." He is particularly impressed by the "excellent acoustics," and the "beautiful proportions." He also notes that the Library is "a beautiful example of modern architecture," and that it is "a very good piece of work."

In conclusion, Pears believes that the Library is a "beautiful piece of work," and that it is "a very good piece of work."

The Library building is an example of modern architecture, and is a beautiful piece of work. It is a very good piece of work, and is a beautiful piece of work.
Their role in the design of the Central Block served to establish Pearson and his colleagues in the School of Architecture as significant players at the building programme on the campus. As predecessors to the new architecture, however, the approach taken was something that came easily to Pearson, but he recognized the wave of the future and, as in the reforms which Mortensen was pushing in educational policy of the School, he did not stand in the way of progress. It is true that the stylistic discontinuity of the modern interior showed little respect for the classical facade, but while Pearson accepted this, he was critical of the impurity of the classical idiom of the original building, disapproving the fact that the vestibule of the main door did not align with that of the adjacent walls, a rule which he could not forgive.

**Bernard Price Institute, 1937**

The Bernard Price Institute for Geophysical Research is an unprecedented building whose somewhat austere architectural character belies its historical significance, for it was in fact a first uncomprehendingly modern building on the campus. Its peculiarity is extremely interesting, and derives from the high drama unfolding in the immediate future years in Europe. The Institute was founded following gifts from the Carnegie Foundation and Dr. Bernard Price, in order to pursue research work in the field of geophysics, encompassing meteorology, radio, lightning, atmospheric electricity and cosmic rays. Dr. Basil Schonland, a world expert on lightning, was to be the first director of the Institute, and the Institute was sponsored by the War Office in London. Clare Fulton explains the connection:

> When war clouds gathered in Europe in the late 1930s, the need to develop radar was urgent. Commonwealth countries were secretly invited to send scientists to the UK for a briefing on the new concept of radar. No one went from South Africa. However, Schonland met distinguished New Zealand scientist Sir Ernest Marsden as a ship in Cape Town after the UK briefing. Green of vague documents and notes made during the UK discussions were all Schonland had to work on, incredibly, he and his team developed their own radar system, which was fully functional in South Africa just three months after the outbreak of World War II.

The architects of this building were the official University Architects, and Pearson was appointed consultant. Pearson most surely have welcomed the opportunity this appointment offered and, enjoying the support of the University administration, went on to play a major role in the development of the project. As described above, the once again got the University Architects to engage Gordon Chimers and Jean Welz as draughtsmen, and the latter was chiefly responsible for the planning of the building. Foster, who had met Welz in 1937, on the occasion of the Architectural Exhibition, appreciated this opportunity to renew this contact with an architect and artist, who, living in Paris, had personally known Le Corbusier and Messiaen. They now met on the construction site of the Institute, and Foster wrote, "The somewhat tawdry atmosphere of a wood and iron hut that served as an office for the architectural staff, we discussed painting, sculpture and architecture whenever we met..."

The layout of the plan, the three-dimensional form, the regular fenestration, and the pre-cast concrete surface treatment are basic, but there are elements of grace in the interior: the staircase (balustrade), and the fittings in the conference room and library. This modest building—it took just eight months to build and cost only £3,000—kept the door open for Pearson, and through him the School of Architecture, to have a say in the architectural developments of the campus.
The Hillman Building, c.1939

This adherence to a modern approach to design, backed by the detailed description of the Central Block, and the lead detail of the Bernard Price Institute, became more evident in the next building entrusted to the Architects of the School. Located behind the South West Engineering Building and adjacent to the Central Block, the Wolf and Hirsch Hillman Engineering Building, completed in June 1941, was a building that broke with the classical style of the original five academic buildings of the grand campus design of the 1920s. Although constructed only a few years after the William Collins Library, it belongs to a totally different era and makes a very modern statement about purpose and design. It is perhaps Wits’ most original international building of its interwar period.[5]

The architect responsible for the design of the Hillman Block was Duncan Howie, who describes the somewhat ambiguous terms of his engagement thus: '[W]hile in the temporary employ of Messrs. Williamson and Cowan, then Architects to the University... and in the absence of Professor Feinrausch, I was personally associated with the design of the Wolf and Hirsch Hillman Building. In the subsequent published accounts of this building my work was recognized in as much as my name was linked with that of Professor Feinrausch as collaborating architect.'[5] It was an austere building, a character dictated partly by the wartime conditions then prevailing, but also by Howie’s own approach to architecture, largely derived from considerations of purpose, economy, and ease of maintenance.

The planning is a case study in the skilful application of the principle of articulation: laboratories, staff offices, drawing halls and lecture theatres each planned in a separate wing; the major elements defined by a central stair and toilet tower. In an article discussing some aspects of the problems and its solution, Howie explained the rationale of the plan, and why, for this complex building of variable scale and functions, he rejected the traditional square plan typical of all major buildings on the campus.[5] This is a summary of his main arguments: the square plan with its internal court implied the limitations of the Italian palazzo whose plan, being of an elementary order, cannot meet the dictates of technical organisation, such as the practical and technical requirements of a laboratory. There is an immediate conflict between the palazzo prototype’s externally imposed order and repulsion and the demands for the specific and functional expression of the internal organisation. Howie’s solution: zoning the three main categories of accommodation, the laboratories, the drawing halls and lecture theatres for the students, and rooms for the staff—each with its own specific requirements in respect to ceiling height, orientation, lighting—and three connected wings.

While with this plan form Howie knowingly breaks with the architectural norms of the campus, he still takes pains to relate his building to its context. By a clever play of masses on this sloping site he combines the ground floor of the Hillman Building with that of the adjacent, lower, Engineering Block, and by interlocking with the Bernard Price Institute he ties the previously isolated building into the overall logic of the site layout. His choice of simple, excellently formed and the restrained treatment of the façades—concealed structural elements, flat surfaces faced with precast concrete, long, horizontally-oriented windows, and rainwater in concrete...
framed glass bricks, and with colour and texture focusing on the interior—results in a building which is serene, but not excessively so. The composition is softened by the imaginative ground floor, and the synesthetic relationship of building to site and landscaping. The design intention is not to challenge the prevailing character of the surrounding buildings but to harmonize with it. The details of the Hillman building interior are crisp and precise, while the character of the fifty laboratories of U.S. Steel. Generally the unimpressively modern aesthetic language favored by Hawkes is close to that of Gropius than to LeCorbusier. The new engineering block was funded by a generous donation of £35,000 from H. and H. Hillman, of Hillman Brothers, an established firm of iron merchants in Birmingham. It was opened on 18 June 1962 by the Prime Minister, Sir F. S. Smith, in an impressive ceremony. The opening was reported in the press, complete with the speeches of Mr. Smith and Dr. R. M. Anderson, Chairman of the Council. The Dental School and Hospital, L. I. 1961

The Dental School and Hospital for the University was built off-campus close to the railway station. Prior to its opening, the Dental School and Hospital were headed by a dean, John Fassler as dean, and the new Dental School and Hospital were designed by their dean and his colleagues. This new arrangement was recorded by Powell in his reminiscences. In a brief note, "The University has now [1961] embarked on a large building programme and I was appointed consulting architect to prepare designs for the new buildings."

On the death of Mr. Williamson, the University decided to appoint me as his architect in partnership with Mr. Cowin. This new decision affected me in the department. It was my duty to receive the staff and carry on as usual. We [Cowin] provided the staff sketches, I was then in a position to receive a portion of the fees for the first time.

We have a detailed and well-illustrated account of the Dental School, written by John Fassler just after its completion. Fassler's original brief, according to detail of the scheme, so apparent in this publication, he had been involved in much more than the preliminary stages, in this article we are given no commentary on questions of style or aesthetics, but a comprehensive programmatic account. Fassler analyses the complex uses and functional requirements—spaces, circulation. He pays attention to the intricate technical services required now, and in the growth. Considerations of structure and materials are given their due weight. Only when we come down to specifics do we get a hint of Fassler's attention to detail: the colour schemes, the quarter-inch horizontal jointing of the stonework, the lettering of the external and internal signage.

However, from this building, we have much to learn about the architects' approach to questions of form and style. A comparison between Powell and Hawkes' Hillman building and Powell and Fassler's Dental School, which followed shortly after, is instructive. Seen side by side, their work is remarkably different. Hawkes' Hillman building is a monument to the classical discipline of conservative modernism. It has been suggested that one of the critical breakthroughs in the classical tradition and modernism—a watershed if you like—was when vertical windows were replaced by horizontal ones. In the Hillman Building, the columns do not interrupt the horizontal continuity of the windows. However, because Fassler emphasizes the columns of the Dental Hospital and the beams are visually suppressed, a vertical expression at classical proportions, rising the full height of the building, results. This is classical in spirit, not a fact. We noted that Hawkes dismissed the traditional palazzo form as inappropriate for a multi-purpose modern building. Fassler accepted it. The Palazzo-like quality of the Dental School evokes the formal aspects of the period when the plan is considered a compact, completely symmetrical courtyard plan, not at all that different in principle to the prefabricated building of Palazzo Farnese, but just the opposite of the articulated form of the Hillman Block.

While Fassler does not discuss these theoretical considerations, there are in fact two factors which argue for the logic of his design choice. The first is that he is constrained by the context and location, which is not the University campus, but
a typical Johannesburg rectangular urban block. The other factor is rooted in the political reality of South Africa at that time. The worst of apartheid was still to come, but when it came to public buildings racial segregation was rigidly enforced. In such a system, a facility serving both blacks and whites was of its very nature destined to be asymmetrical.

THE CHANGING OF THE GUARD: FASSLER TAKES OVER FROM PEARSE

The plan overall indicates the buildings on campus in whose design Professor Pearse and some members of his staff participated. The extended Dental Block (1936), as its name implies, stands on the middle line of the main axis, facing north. To the west, in ascending order from south to north, are the Bernard Price Institute (1937), the Hillman Block (1990), and the University (Gullivers) Library (1933). The first Dental Hospital (1941) is the only extant building which falls into this category, but it is not on campus. Its post-war successor— which was still under construction— the new Oral and Dental Hospital (1961), at the south-east corner of the campus, is reflected on the plan, as its function later changed, as the Wits School of Arts.

We eventually get to the John Moffit Building (the library's immediate neighbour, shown in the next block). By now Fassler has replaced Pearse. Before we examine the role of Fassler and his team in the design of that building, we need to review the changing pattern of relationships that developed over the years between the official University Architects, the Head of the School, and the teaching staff.

PROFESSIONAL AND ACADEMIC RELATIONSHIPS

When the University began its development of the campus in the 1930s, after the Great Fire, it remained loyal to the firms of Ennion and Williamson, and Cowin, Power and Ellis, who were regarded as the official University Architects. While the University was aware of and willing to exploit the pool of architectural knowledge that was available in the School of Architecture, it was not yet ready to grant Pearse and his colleagues professional status. When the commission for the Library was awarded to the official University Architects, Pearse was asked by the University to assist in the design of the University Library, which he did unhesitatingly, notwithstanding the professional ambiguity which this request entailed. Fassler, presumably at Pearse's request, designed the facade and the reading rooms.25

It was proper that the two firms who were the original architects of the Central Block were commissioned to undertake its renovation. However, by this time, the University obviously desired that Pearse play a more direct role, and he was therefore named 'consulting architect'. The designs were executed according to plans prepared by Pearse's staff. Fassler, while in the temporary employ of Messrs. Williamson and Cowin was closely associated with the design and construction of the extensions to the Central Block.26 This rather clumsy arrangement apparently...
was acceptable to all parties. Pearse and his staff did the work, the University Architects provided the organizational and professional infrastructure, paid the bills, and got the credits.

The same set-up, therefore, was used for the next job, the Demand Prize Institute. Again, the architects were the official University Architects; Pearse was appointed consultant, and at his request the University Architects engaged Gordon Chalmers and Jean Wells as draughtsmen, the latter being chiefly responsible for the planning of the building.

With the Hillman Block, Howie again came back into the picture, but with a significant shift in emphasis. Apparently again in the temporary employ of Messrs. Williamsen and Cowl, and in the absence of Professor Pearse overseas, he was personally entrusted with the design of the Wolf and Hirsch Hillman Building. In the subsequent published accounts of this building his name was linked with that of Professor Pearse as a collaborating architect. For the first time, one of the lecturing staff came out of the shadows, as it were, and gained recognition for the professional role he had played.

The shift in status implied in the Hillman Building is more explicit in the next project, the first Dental Hospital. Here, J.E. Cowl and Pearse are the accredited architects—the professor, no longer merely a consultant or associate, has moved up in the hierarchy—with John Fassler as collaborator.

Up to Pearse's retirement, the triangular arrangement remained unchanged in principle, but the weighting of responsibility, and the resultant professional status, shifted. The University appointed the official architects, and then found a mechanism for bringing Pearse into the picture. After his successful understanding of Excess House they had no doubts about his professional competence, and the fact that he was an insider when it came to understanding the needs and mind-set of academics (the client) was an additional advantage. Pearse in turn brought in one or other of his most trusted lieutenants, Fassler or Mews, to be his right-hand man, and his most reliable assistants as draughtsmen to work with the University architects.

The next project on campus, the new Civil and Dental Hospital, was to see an entirely new professional framework put into place.

THE NEW DENTAL AND ORAL HOSPITAL (1947–1951)

In 1947 the South African Railways (SAR) expropriated land just north of Johannesburg's central business district in order to build a new railway station. This involved the demolition of the University Dental Hospital in 26 St. Bruce Murray, the University's historian, writes: Initially the University contemplated erecting a six-storey structure in town on the Waltham's Street site offered by the SAR but when government funding was not forthcoming, Council opted for a three-storey building on the main Wits campus. This new building brings us to a change point in the history of the Architectural School and its influence on the architecture of the university campus. First of all, it
was the catalyst that brought about Pearce's retirement, and the appointment of a new Professor of Architecture. Secondly, it introduced into the campus a building of unique architectural character which neither reflected the modernist trend that had been evolving, nor predicated what was later to occur in the design of the John Maufe Building.

To understand the implications we must follow a complicated trail of events. In his memoirs Pearce wrote: In 1947 ... I was asked to prepare plans for a new Dental School and Hospital in the South-West (actually South-East) corner of the University Grounds. At the same time, Pearce, then still the full-time senior member of the academic staff, received not only this commission but also one for an Ophthalmic Hospital at Barowar, the joint non-European Hospital on the southern outskirts of Johannesburg. The double head of responsibility, as Dean of a complex Faculty and professional architect with two major projects, caused him to think about his future. He decided to resign as Professor of Architecture and go into practice: he wrote. I took Paul Huhn into partnership and we were asked to keep our offices at the University in one of the huts that had been erected to house the large number of students after the War. It was as an architect that Professor Pearce had been appointed architect of the New Dental Hospital, but he then continued as the principal of a commercial architectural practice, Pearce, Ansell, Huhn and Bird. This announcement situation was corrected when the firm was authorized to continue with the architectural work in connection with certain proposed University Buildings (the Osmi and Dental Hospital) which Professor Pearce had been closely associated with before his retirement from the staff of the University at the end of 1947.\footnote{95}

At the end of 1947 Professor Geoffrey Pearce retired from his position as Head of the Architectural School and Dean of the Faculty, and Professor John Fassler, newly appointed to the Chair, took his place. For travelling to Cape Town, Fassler wrote: In collaboration with Prof. Pearce I recently designed ... the proposed New Dental and Plastic Surgery Hospital in Walmanana Street, Johannesburg.\footnote{53} We are to understand from this that Pearce, following his usual procedure of calling on one of his trusted lieutenants, had recruited John Fassler (now his successor as Head of the School) as his associate. This was apparently right at the very beginning of the project, for Fassler is talking of the Walmanana Street site, which preceded the campus location. Working with his colleague was a logical move; Fassler's previous experience in the first Dental Hospital had not only given him some expertise, but he had worked there in close association with Professor J. C. Middelton Shaw, Head of the Department of Dentistry, and the new hospital was to be planned according to Shaw's specifications. Whatever the formal arrangement, we who were members of Fassler's staff were in doubt that the new head of our school— as he guided us over the building, and explained its technical complexities—was wholly responsible for its design.

According to his own account of the building, the new Osmi and Dental Hospital was intended by Fassler as a 'reasonably harmonious' addition to the main group of buildings on campus, which were all classical in character.\footnote{54} Murray, following Fassler's line of thought, describes it as a neoclassical design. This is not an accurate designation, for while in general most of Fassler's work was classical, the term neoclassic implies an 18th century revival origin, whereas its dominant influence was that of an early 20th century pioneer of modern architecture, the French architect-engineer Auguste Perret. The difficulty in classifying the Dental Hospital stems from the fact that it is a hybrid building. The entrance of the building is emphasised by a portal of full height column whose fluted shafts and embrasure capitals hint at the language of the classic orders, but whose slender proportions reflect their reinforced concrete origins. The flat standing lintel on the entablature, entirely modern in its choice of type-face, together with the shadows it casts, clearly evoke the decoration of the ancient past. The idea of the column is also classical, but the square profile of this concrete element comes from the mould in which it is cast. Finally, the decorative gables flanking the entrance portico are an acknowledged quotation from Auguste Perret.\footnote{58}

ARCHITECTURE IN AN AGE OF UNCERTAINTY

In 1948 Professor John Fassler presided over the Annual Exhibition and Prize-Giving Ceremony, and as was customary, delivered the Oration. In substance it was similar to previous addresses on such occasions, a factual review of the previous year, and some hopes for the future. But in the course of his introduction, a tribute to his predecessor, Pearce, he included this historical note: Although the school had to reconstruct itself (from the Baker traditions) when it became receptive to the philosophy of contemporary architecture that was being clarified in Europe and
the United States, it did not happily lose enthusiasm for our own new South African heritage of building and planning; and I hope it never will." The school stands on the threshold of a new era, and the vision of the new Dean is not that of the radical Transvaal Group, the Le Corbusier groupies, but that of a true conservative, one who conserves the values of the past, but is receptive to the challenges of the present.

An interesting phenomenon begins to reveal itself here, as the school enters into a new phase. During the 1920s the School of Architecture produced designs in the classical tradition, true Beaux Arts cohorts. It was only after the changes of 1932 initiated by Turner and brought about by Martinens and his circle that work in the modern idiom became the school style.

From 1932 to 1942 the design approach of the School of Architecture was dominated by the aesthetics of the International Style, that of Le Corbusier, Mies, and—overwhelmingly—Le Corbusier. Nevertheless, a level of classicism continued to be imbued. Pearson continued to teach his Theory of Architecture (course by taking standard building types—an art gallery or a college—and illustrating the planning procedure by drawing a center line down the blackboard, then arranging a sequence of rooms symmetrically above the axis. The orders were studied in meticulous detail in painstakingly rendered in washers of Chinese ink, hours were spent mastering the intricate geometric basis of Roman Lettering, and 17th-century Greece and the Italian Renaissance were considered the golden ages of architecture. Seen through the eyes of Martinens and his followers, traditional classicism and modernism were found to be compatible, and merged into the ethos of the School of Architecture. Both are governed by a rigid neoclassical geometry, and in both they are disciplined by an understanding of the relationship of form to structural technology.

In the debate between Apollo and Dionysus, the School was clearly on the side of rationalism; but there were nuances in the interpretation of the rational ethos which led to a diversity of approach among the various members of staff. Martinens was an unproven follower of Le Corbusier, but with his death in 1942, the discipline he had exerted over his disciples (both colleagues and students) declined, and his increasing eclectic approach—the facade of his own house in Sandton was a major development—proved liberating to his followers. We see in the architects designing the University buildings that the spectrum of rationalist which characterized his approach was sufficiently wide to encompass the stylistic classicism of Pearson, the formal discipline of Fassbinder and the technology-based, function-driven Baulean aesthetics of Howells.

It is interesting to note that the 1940s and 50s were periods of architectural uncertainty. Mies in Chicago was the unchallenged advocate of minimalism. Niemeyer in Brazil posed the romantic alternative of tropical exuberance. Scandinavia offered an effective New Eclecticism, the Festival of Britain celebrated a confluence of styles dominated by the Royal Festival Hall, and a mix of New Brutalism was inherent in the uncertainty. This uncertainty was inevitably reflected in the School of Architecture, both in the work of the students, and in that of their mentors. On the other hand, at the hands of many architects whose professional task was to provide the office buildings of Johannesburg's city center, or the towering blocks of flats in Hillbrow, a far more homogeneous architecture was emerging, the result perhaps of the constraints of zoning regulations and byelaws, and the tremendous economic forces of demand and supply, investment and return. This was the architecture which Nikolaus Pevsner, with guarded praise, called the 'contemporary vernacular of the Transvaal.'

By the 1950s, when the University was about to put into effect its large postwar building programme, it would have been difficult to predict which direction the architectural character of the campus would take. It would be a development of the classicism of the Library, the restrained modernism of the Hillbrow Block, or the disciplined eclecticism of the new Oad and Dental Hospital. This question was soon to be put to the test, when the School's dream of a home of its own became a reality. We started this discussion by quoting from Fawzi's first address at Prize Day, at the school of which he had just become Bield. Let us return to that day, and see what convinced Howells, speaking in his capacity of the President of the Transvaal Institute of Architects at that same ceremony:

Many will remember a plea made by Professor Fawzi when President on a similar occasion. He drew attention to the very real disabilities under which the Faculty at Johannesburg and argued the case for proper accommodation and equipment in a building housing the Department of Architecture, Quantity Surveying, Fine Arts and even Physical Planning . . . The need for such a building is no new one as it was then, it is only too apparent that the widely scattered studios, lecture rooms and theory syllabuses against that essential point which is the soul of a training institution.

The design of such a building was still some years away, but it was to be the next challenge on the campus to be confronted by Fawzi, Howells, now a senior lecturer, at his right hand, and the teaching staff of the school. To undertake this daunting task successfully they would have to act as a team, bridging the differences in their individual philosophies and stylistic preferences. But there is more to architecture than questions of style. Fauzi himself stressed this, inferring architecture as 'solving the practical problems foremost' Fawzi and Howells. In the senior members of staff engaged in the design of the University buildings we have so far looked at, had to cope with the typical functional problems of lecture theatres, staff offices, libraries, laboratories, together with the integration of the technical problems of services and environmental control. The experience gained was to stand them in good stead when confronted with the next challenge, solving the practical problems posed by the design of the accommodation for the School of Architecture.

THE ARCHITECTURE AND FINE ARTS BUILDING: APPOINTING THE ARCHITECTS

On 1 November 1954, the Building Committee of the University recorded a momentous decision, when it recommended that the Council authorize that plans, working drawings and details of estimated cost be prepared in respect of...
a new building to house the Department of Architecture and Quantity Surveying and Fine Arts. After years of enduring sub-standard conditions, the School of Architecture was to get its own building. Equally significant was the fact that this was not to be just any building, but one that was being designed by the Department of Architecture themselves. The committee recommended that the staff of the University Department of Architecture be appointed Architects for the proposed new building, and that they be requested to proceed forthwith with the preparation of plans and specifications. This was a significant step in the development of the School, as it was the first time that the staff of the School had been involved in the design of a building.

The new building was to be a central one, and the head of the Department of Architecture, Professor Fastler, was appointed to be the overall supervisor of the project. The members of the design team worked together closely, and the results were impressive. The building was completed on time and within budget, and it is now considered to be one of the finest examples of modern architecture in the country.

In addition to the design of the building, the Department of Architecture was also involved in the planning and construction of several other buildings on campus. These included the University Library, the Arts Building, and the Science Building. These projects were all completed within the budget, and they were all well-received by the students and faculty alike.

THE DESIGN TEAM: A PROFILE

Apart from the architects who were involved in the design of the new building, there were also several other architects who contributed to the project. These included Professor Fastler, who was the overall supervisor, and several other members of the Department of Architecture. The team consisted of architects of diverse backgrounds and experiences, which added to the creativity and uniqueness of the design.

The team included several architects who had worked on previous projects, and others who were new to the field. This diversity of experience and background added to the dynamic nature of the team, and it was this diversity that allowed the team to come up with innovative solutions to the challenges that they faced during the design process.

In conclusion, the design of the new building was a significant achievement for the School of Architecture. The team worked together closely, and the results were impressive. The building was completed on time and within budget, and it is now considered to be one of the finest examples of modern architecture in the country. The team's diversity of experience and background added to the creativity and uniqueness of the design, and it was this diversity that allowed the team to come up with innovative solutions to the challenges that they faced during the design process.
breaking Civicana Theatre (the second such theatre in the world, after one in Japan) was probably the most important. The design I was president of, however was that of my own house, Casa della Salvezza, in Johannesburg, designed and built while I was engaged on the John Moffat Building.

At the time of their appointment to the design team in mid-1953 the architects already knew each other well in various capacities, as fellow students, fellow members of staff, professional colleagues, or personal friends. Some of them were involved in the University Training Corps during the war. They were all members of the same Institute of Architects, and served together on its committees. While Fander and Howie were obviously the senior members, with Tomeselli in an intermediate category, having spent three years in war-time service, the age spread of only 13 years from the oldest member of the team to the youngest was a limited and indelible range. As architects they were old enough to have gained experience, but not too old to have passed the peak of their creativity. They were all married, and socially they were a considered group.

Various members of the team had some previous experience of working together. From 1927 the institute's official organ, the South African Architectural Review, had been edited within the School of Architecture. In 1947 Howie took over as editor-in-chief from Pearce, and for many of the critical years leading up to the John Moffat Building the editorial board consisted of Howie, with Tomeselli in the present written as his associates, working closely together. Colleagues on the staff had also worked together as professional architects. At University buildings where Pearce had involved either Fander or Howie, it is natural that the other kept a close watch on the proceedings. Architectural competitions were an obvious area for cooperation. Mengestu and I had combined forces in the Harare High School competition, receiving an honourable mention. Together with Rina Roongem in Vonna, we jointly competed in 'The Star Modell House Competition' winning a first prize and an award of merit. As an outcome of these events, we received two actual commissions, and houses based on our competition designs were built in Kolobug and Preciosa. In the same Modell Homes competition there was also a successful entry item of our colleagues Tomeselli and Richele Howie, and other staff members worked as a team on a project for the International Competition for the design of the headquarters building of the Uganda Electricity Board in Kampala, and while we were unsuccessful, Shalom, a lone wolf going his own way, won fourth prize.

Another area in which members of staff collaborated was in the designing of exhibitions. We have already recounted these exhibitions which the Architectural Students Society prepared, with the active participation of staff members and members of the Institute of Architects. But there were other, commissioned, exhibitions, designed in their capacity as professionals. Two of these, one for the SA Medical Council, the other for the SA Institute of Electrical Engineers, were designed by Howie and me; and constructed in one of the temporary huts used by the Faculty of Architecture. We were also commissioned by the Cultural Affairs Department of the State Information Office to design a retrospective exhibition, Architectural in South Africa, for the Union Government State Information Service, marking the fiftieth anniversary of the founding of the Union of South Africa. This exhibition, first mounted in Bloemfontein in 1960, was designed as a travelling exhibition intended for display in England, Europe and the USA.

Apart from the architects, there was another teacher from the Faculty of Architecture involved in the making of the John Moffat Building, Manfred Marais, the structural engineer, was an important member of the team. We have already commented on his teaching of the Theory of Structures engendered enthusiasm for a subject generally regarded by students as something to be endured rather than enjoyed. It is significant that Donal Scott-Brown, Robert Versalis's wife and partner, who started her architectural studies at Wits, all of her teachers of those early days—which included most of the John Moffat team—named only Marcus as a mentor. As a student I too had learnt much from Marcus the teacher, and later enjoyed his company as a colleague, listened to classical music in his home, admired his Steiner furniture, and employed him as my structural consultant when I built my first multi-storey industrial building, Myray House.

JOHN MOFFAT, THE BENEFACTOR

In recalling the architects involved in the Architecture and Fine Arts Building, one other name should be mentioned, the building is known officially as the John Moffat Building, named in honour of the benefactor whose legacy made it possible. John Abraham Moffat (1871–1941) was born in Manchester, spent his early years in New Zealand and Australia, and from 1900 until his retirement in 1939 worked as an architect in Johannesburg, with a special interest in town planning. Two years after his retirement he died, and was buried on his farm in the Lydenburg district. In his will he left the proceeds of his estate, after certain specific bequests, to be paid to the University of the Witwatersrand fifteen years after his death, stipulating that the use to which these funds were to be put should take a permanent form; the legacy, having appreciated over the intervening years, amounted to about £100,000. In 1954, when the University decided upon the project for Architecture and Fine Arts in 1956, it was the anticipation of that bequest, plus a loan from the Government, which made the financing of the Architecture and Fine Arts Building (an appropriate choice for a permanent memorial to the donor, an architect himself) a feasible proposition.

THE JOHN MOFFAT BUILDING DESIGN AND CONSTRUCTION

We will recall that when, in November 1954, the University decided to construct a building for Architecture and Fine Arts to be designed by the Staff of the Department of Architecture, that decision was coupled with a request for the architects to proceed forthwith with the preparation of plans and, as soon as possible thereafter, working drawings. On receiving this welcome news Fassler did not wait for the formalities of the appointment to be finalised, but immediately set
the design process into motion. The first step, obviously, was to call the architects
on his staff together, and determine who were interested in participating in this
project. The first ad hoc group included all the members of the current design
team, plus Carl Pfahl. Appointed in 1948 as a temporary full-time lecturer (he
was made a permanent lecturer in 1953), Pfahl was a stimulating colleague but
not a team worker. By October 1955 he had pulled out of the design team, but
made contributions in the early stages of the design process.

The homogeneity of this group of architects, while it ensured that levels of
compatibility of design approach (implicit) in team work, nevertheless did not
imply uniformity. The participating architects were individuals, each with his own
personality, temperament, experience and vision. They also had different
skills to contribute, and sometimes saw the problem through the distorting lens of
those particular attitudes to one the project was an artistic challenge to another.

A technological opportunity, at the conceptual stage of the design process, this
diversity was not to be deployed but rather an asset to be exploited. Here, in a
special brochure to mark the opening of the building, wrote:

The introduction of the John M. Blatt building into an existing University
campus determined the nature of its architectural character; these felt
that the building should be a harmonious addition to the University but
that the planning and the detailed treatment should take advantage of
contemporary technological methods, in the handling of the scheme in its
broad and detailed aspects, the architectural treatment should be free from
any features which might have precept of previous architectural fashion.

This, however, was not an initial statement of intent, but a consensus eventually
reached. The starting point was not an a priori statement, but a range of options,
to be evaluated comparatively. This indeed was an approach which we as teachers
encouraged our students to follow.

With a schedule of accommodation broadly sketched out, the first steps in the
design process involved a pooling of ideas. This was not a brainstorm session in
the accelerated sense, but rather an independent concept to be brought
together for discussion. The different sketch plans were prepared by individuals,
paired up, or pairs of a report on the building status. The best ideas were incorporated
into the final sketch plan. Despite expository searches we have not found these early
sketches, but we shall attempt to reconstruct some of these, to indicate the range
of possibilities opened up. These two sketches correctly note the principles
involved, but not necessarily the details or proportions, as we are relying on
memories of events fifty years ago.

Concept A suggests a step-to step-up floor, a horizontal slab carried on pilasters,
for the studios, thus enabling a free disposition of the other major elements to take
place below. In plan and section, with the disposition of the functional zones seen
along the other, it is radical, but in three-dimensional form it does not break with
the tradition of its Beaux-Arts-inspired neighbours on the campus. Concept B follows
the articulated form of the Hillman Building, but brings it boldly to the main area
of the campus. It is tee-shaped, with studios in the block forming the head of the

Fig. A-18
Alternative
conventional
diagram, John
M. Blatt Building

way, facing north and south, and lecture theatres and administration in the upright.
It gives emphasis to the Library, a freest form projecting into the courtyard. These
polar extremes, and those in between, presented the team with a wide range of
possibilities. Here, writing shortly after the completion of the building, when
memories were still fresh, summed up what happened next: "The best ideas were
incorporated in the final sketch plan. This included the set back of the East Wing
to create a forecourt and the onview of the exhibition foyer and lecture theatre suite among others."

By 16 March 1955 the consensus of ideas had progressed sufficiently to
enable Stav of the first sketch plans and estimate of cost to the Building
Committee. Unfortunately we do not have these, or any other interim plans, to
cannot plot the variations that took place. The building as now planned extended
on the north beyond the site previously approved by the committee. An extension
of the site was approved, provided that the southern line of the building was
not more than 40 feet from the building line of the Library. The Department
of Architecture was instructed to prepare fuller plans and elevations by the end of
April.

In September 1955 the Associated Architects submitted a six-page document
to the Building Committee, setting out a revised programme for the proposed new
building, with a detailed schedule of accommodation. A major item was the 300-
seat lecture theatre (the Dorothy Sunkel Auditorium), intended to serve as a
venue for both the University and the public, a use which governed its location
and formal emphasis in the design of the building. There were to be 200-
seat lecture theatres (later revised to 100-seat and a 50-seat), all fully-
equipped for projection, automatic black-out facilities, and mechanical ventilation;
exhibition space, study, library, staff offices and administration. A staff drawing
office was to be provided, a perpetuation in permanent form of studio seminars;
the accommodation in the basement, b which the plans were then being prepared.
The revised programme necessitated revisions of the plans. Around the end of the year two draughtsmen were engaged, to speed up production of the drawings. The new fastidiously prepared, and the architectural drawings were submitted for approval. These revisions were made, and concerns were raised about the internal rearrangements of the building with the object of improving the working and amenity of the building. The design work continued, and by April 1956 the plans were sufficiently advanced to enable the architects to call for tenders for the excision and clearance of the site. This was not a trivial affair, as the site was a three-storey building, had been used as a dump for the spoil excavated for both the adjacent swimming pool and the Library block. However, the planning process was about to hit a serious snag. In the process of refinement and revision, and possibly some misallocation in the estimates, the anticipated costs now exceeded the budget, causing concern in the Building Committee. That body responded with its usual unwelcome suggestions, reducing the cost and allocating much space as possible for departments other than Architectural and Fine Arts.

At this critical stage, a perspective (the original in colour) shows us what the building looked like. It is a four-storey building with a modular facade, capped by a prominent overhanging cornice. The two wings at right angles are anchored in a rectangular lift tower. Attached to the east face is a two-storey projection, containing a six-day college (flanked by further three basements) of a nondescript character. In view of the Committee’s negative reaction, the architects decided to reduce costs by eliminating the fourth floor, to a large extent met the committee’s main objections, economy, but they were still troubled by the appearance of the building. Tactfully, they suggested that the architects consider further suggestions alterations to the plans, especially the proposed design and treatment of the central facade.

In June 1956 the Committee approved the revisions, and authorised Foster and his team to prepare the final working drawings and detailed plans. The work was intended to be executed in stages. First, documents had to be ready for the construction of the basement and lower ground floor, for which the University had to be paid by the end of September. Then, while supervising that construction, the design team was to prepare all the necessary documentation for the upper three floors, which would be a separate contract. The design team then had three months to make further suggestions and alterations to the plans, especially the proposed design and treatment of the central facade. Foster and his team had a busy time ahead of them.

The letter part of 1956 was devoted to the preparation of the working drawings and details, the revision of the specifications and the bill of quantities. The finding of the documents also entailed coordination with the specialists, especially the structural and ventilation consultants. The role of the latter had become problematic, because of Indication on the part of the University whether to build a central building or to build a central building. This left the design team in the air, not knowing whether they were to rely on the central plant or to provide for heating and ventilation independently. To prepare for this eventuality, which was critical in relation to the lecture theatres, they had asked the consultant, D.H. Hill, to advise on air conditioning, heating, and ventilation, but were instructed to put the decision on hold.

This unsatisfactory situation continued until September, when the issue was finally determined. Howe phoned Hill on 10 September, to inform him that the architects had received instructions from the University Council that the architect and Fine Arts building would be heated electrically. This had implications not only for Hill but also critically for the design team, because electric heating was to be incorporated in the floor slabs. It affected the foundation and basement contract about to be signed. Howe took responsibility for the arduous task of supervising the installation of the system, which demanded technical ingenuity and great precision in execution.

It should be noted that between July and November all correspondence from the Committee directed to Howe (with one exception, a letter to the Chairman about insurance of the building), which suggests that Foster might have been away for some months. In fact, the team was about to be relieved. Jacques Margenot, appointed from the University in 1956, after building operations were begun, took up private practice, and left the team temporarily at the end of 1956 to spend a year in Italy and Great Britain. After being awarded the Royal Scholarship, he returned to work for the architects, but was replaced by D.H. Hill. Howe felt the edge of the University’s concerns. "What should I tell the Principal?" asked Howe. "Is it all the work that’s finished?" the consultant asked him to schedule, on what terms. Is it worth your while to call for tenders; and have the contractor start work on Monday, 12 November? Howe’s reply was prompt, but not altogether reassuring. "It is with regret that I have to report that, in spite of our strenuous efforts to have the documentation of the work completed by the 15th of this month, this intention will not be achieved. Under the circumstances we should obtain tenders by the 19th of November. However, the realities, he doubted that a contractor would bring his equipment to the site and start operations before the holiday; beginning on 14th December."
It was in fact some months before a tender was accepted and a contract entered into for the superstructure. In March 1957, Fassler (now back in the picture) submitted his updated schedule for the completion of the work. He anticipated that by the end of 1958 the whole project should be complete, including the development of the grounds adjacent to the building. When I returned from Europe at the beginning of 1956 to take up my duties once more, it was apparent that this was an optimistic assessment. For the building there was still much work to be done, and for the architects many details still to be settled.

TEAMWORK AND THE DESIGN PROCESS

Before we look at the final building opened on 23 October 1959 by the Minister of Education in an impressive ceremony in the courtyard adjacent to Fassler's reflecting pool, we should consider how design decisions were taken by the team. The term 'Fassler's pool' gives a hint that some aspects of the design were clearly the priorities and prerogatives of individual members of the team, by virtue of their areas of interest and specialized skills. The landscaping of the surroundings was indisputably the domain of Professor Fassler, and he had fought valiantly throughout the process to retain the pool, even when under pressure to cut costs. The library was another focus of his attention, and he designed the elegant tables in its reading areas. It was self-evident that Hoeller would be responsible for handling most of the technical problems, especially the under-floor electric heating. Recalling Tournay's designing the built-in furniture in the staff offices, and it was expected of me as an historian to find appropriate symbols linking the Modern Movement to its roots in classical Greece (the suggested Greek fret in the mosaics, the Renaissance (Leonardo da Vinci at the centre of the universe) and the School's one-time godfather (the modular as an evocation of Le Corbusier). As the senior academic and natural leader of the team—and teams without a leader (what Gropius called a team captain, and more commercial practices a project manager) lacked focus and coordination—many of the decisions were ultimately Professor Fassler's. It was not that he was dictatorial, but we respected him personally, as well as his position in the University, and were accustomed to the chain of command in this rigidly hierarchical institution. However, this did not stop us arguing, and pressing our points in the discussions which took place throughout the design process about various aspects of the design. These ranged from issues of principle to matters of detail, and stemmed from the fact that some younger members of the team were still loyal to the tenets of the 'fathers', the tenets which had been the lodestones of our education, whereas the older and more mature of us had become much less rigid about so-called rules of design. Questions were asked. Did the Division of the Faculty demand that functionally-differentiated zones—the office wing, the studio wing, or the auditorium—he separated by articulated links, and not simply abutted one against the other? If venmous is a crime, then while the Le Corbusier and Le Corbusier desired patterns are abandoned on the plate glass doors were justified, because they stopped people walking unaware into the doors; the six red mosaic panels on the north façade were an arbitrary addition to be deployed, if climate control was an imperative, they why not insetproyect horizontal louvres on the exposed north side of the studio? There were, of course, two sides to every issue. The solution to the sun penetration problem was to use tinted glass louvres, set deep into the window recesses, to protect them if possible from hail. This seemed an acceptable solution, but not only did these transparent
louvers leave the expansive view to the north unobstructed, but they were not obvious from the interior.

Other issues were noted. If form follows function, then how could a standard window design reflect the diversity of functional spaces within? Indeed, why did the artificially lit and ventilated Dorothy Suckling Auditorium actually need windows (which entailed an elaborate black-out system) when the Great Hall functioned perfectly well without them? The overuse of glass against pragmatism won the day. The architects did not devise permanently darkened theaters as there is much in favor of the atmosphere and psychological characteristics which derive from natural light.

Thus, at a detailed level, some of the teams who were intent and still paid homage to the aesthetics of the International Style—where building silhouettes were boxlike and clean-cut—were uncomfortable with the concrete and unhappy with the plinth, which were regarded as anachronistic, harking back to the Renaissance palaces. In hindsight, many of the issues we debated so earnestly some fifty years ago seem irrelevant in this post-modern era, and the building today looks fresh and new, having aged more gracefully than one perhaps could have predicted. On major issues, especially the planning of the building and its character in general, consensus was achieved, and this was the secret of the successful outcome of the process. Efficient planning of functional spaces was a strong point of the School, emphasized in the design studios and a governing factor in the architectural practice of its teachers.

THE JOHN MOTTAT BUILDING

The planning of the John Mottat Building was particularly felicitous in all its aspects; the broad zoning of major functions, the way the separate departments (Architecture, Quantity Surveying, Fine Arts) were given their own identity but

nevertheless integrated into the whole, the ease of the circulation pattern (including the dramatic spiral stair, with the Cecilia Sissi mosaic at the base and the detailed layout of minor spaces. Access for students from the campus, the staff from the car-port, and the public from the road to the west, was convenient. The studios were well lit, and took into consideration both the individual student and the needs of the class as a group. The lecture theatres were meticulously planned as "machines for learning in": the architects having learned much from the cumulative experience of Edozian.
House, the Central Block and the Hillman Building; and they opened out onto the generous foyer/exhibition space. The library with its open access shelves and generous reading space—with the background noise the gentle splashing of water in the fountain in the pool beyond the picture windows—was easy to manage and pleasant to use. Staff offices were located conveniently in relation to the studio, the lecture halls, and the administration. As a didactic as well as a social environment, the building worked well.

We recall that it was at the instance of the Building Committee that the initial design, as represented in Faile's perspective, was amended. Sometimes, apparently, it is worth while listening to the comments of one's client. The original
large scale of these openings and in the design of the mosaic panels. These include a running pattern in pale blue on a honey-coloured background with accents of dark blue and brown, relieved by the repeated contours of the white glazed tiles.

The standard module, it should be mentioned, was 5th, 8th, which related to the desk spacing in the studios, and was convenient for the offices. The splashed panels were faced in plain blue glass mosaic, set against the cream-coloured combined terrazzo of the present column surrounds.

CONCLUSION

The cynic has it that the camel is a horse designed by a committee. The John Moffat Building is no camel, and by equal terms it is a thoroughbred. As a design it holds together, and is a unified work of architecture, unmarred by major inconsistencies.

It appears to be the work of one hand, not that of six architects. A committee may be a compromise, where members striving for opposing agendas can at best hope to arrive at a compromise solution. The camel is that compromise. A team, on the other hand, is motivated by a common goal, and the resolution of differences is achieved by creative synthesis, not compromise. The common objective of the team was to produce a work of architecture which sat well in its context, respecting its neighbours, a work not of ephemeral fashion, but one which would age with grace, and a framework of accommodation practically efficient and spiritually congenial, in which teachers could educate, and coming generations develop intellectually and creatively.

The final design of this building did not reflect the direction in which Fassler, the leader of the team, had been moving, if we trace the evolution of his architecture leading up to the School of Architecture Building: the Library, the first Dental Hospital in Salt Street, and the new Dental Hospital on the campus, the John Moffat Building was not its expected summation. Moreover, nor was it to be a take-off point in his subsequent career; the direction he was to follow in the future, when he designed the Senate House and other buildings for the University.

The classical dignity and repose of the John Moffat Building is characteristic of much of Fassler's architecture. While these characteristics are not exclusively his, there are some evolutions of classical detauls such as the cornice and the pilasters, which at that time no other member of the team would have introduced. Some unique features have the Fassler touch, and others are there only through his insistence: the cantilever, for instance, or the vertically-stripped columns, which he claimed had been inspired by the Allianz Building in Munich, which he had visited in 1956. He had, of course, used the device of the striped columns before, in Exeim House, and the idiosyncratic broad horizontal joints separating the rows of tiles in the toilets repeat a Frickely detail from his first Dental Hospital. But while the hand of Fassler is evident in the John Moffat Building, we venture to say that it is not a design which, on its own, he would have produced, nor is it typical of his approach to architecture. Without knowing the design history one would be hard put to say 'Ah yes, this is a John Fassler building'.
be equally difficult to attribute the design to Duncan Howe, or indeed any other individual member of the design team. It is a unique synthesis of many individuals, each contributing to the whole, some by taking major decisions, some by making counter-proposals, some by merely putting in a judicious word at the right moment, but all marching to the same drumbeat. The building is an organic whole, the result of a holistic process of design, and it is that quality of holism, where the whole is greater than the sum of the parts, that characterizes true teamwork. This is not to assert that teamwork is the best way to achieve a good outcome, but it worked in this case, with this problem and this set of participants.

The design of the John Moffat Building was not revolutionary in its day, having neither the elegant sophistication of Mies van der Rohe’s pure three-dimensional geometry in a brass, nor the braveness of structural form of Utzon in Sydney. At the time it was designed it was conservative, not in a pejorative sense but in the best meaning of the word, meaning to preserve that which is of value from the past, while being open to the challenges of the future. Fifty years on, it remains undated, refreshingly new.

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NOTES

1. For biographical notes I am indebted to the Institutions website, Department of Architecture, University of Pretoria. Other documents, such as the City of academic staff, come from the Witswatersrand University archives. Specific items are noted where relevant.

2. For Farnell see Gilbert Herbert, Farnell: a Pioneer Commentator on the Modern Movement, Plata, December 1972.

3. For an authoritative account of Arntzenius and the transformation of South African architecture see Gilbert Herbert (1979).

4. For Arntzenius’s efforts in 1972 to set up a more formal organisation, see the site of the African Art Club, and then the Zuidwol Club, see Herbert (1979, 36-39).

5. For the exchange with Gropius see: Norwood (1953). 153-156.

6. In a 1933 lecture to the Vanguard Club, Arntzenius named Le Corbusier, Mies van der Rohe and Gropius as his sources. In 1934 version, given on the occasion of the Rand Daily Mail Ideal Homes exhibition, Gropius was omitted. Finally, on the publication of the lecture, Le Corbusier, the foremost exponent of contemporary architecture, above mentioned.


8. In a conversation with the authors, Rivard, 1990.

9. Bagwati, "The Maximum Theory of Planning: Le Corbusier, Frank Lloyd Wright, etc. SAA, January 1942, pp. 4-13. See also Marnedor, Norman Navrin and Angus Stewart, all contributed to the controversy which followed. In the March, June and October issues of SAA.

10. For a comprehensive history of this school see Minnie Reyes, The Faculty of Architecture of the Witswatersrand, Johannesburg and its role in the community, Faculty of Architecture monograph, 1977.

11. Officially, the School had been a department in the Faculty of Engineering until 1940, when it was elevated to the status of an independent Faculty of Architecture, including the departments of Quantity Surveying and Fine Arts.
13. See the account in Herbert (1975) p. 236.


15. There was always criticism, of course. See Murray (1939) p. 378 for the comments of Prof. R.H. Murray, professor of music, about critical points in the design. R.H. Murray, a friend of Prins, was exercising his professional judgement. He had been with Carpentier when Carpentier was appointed, and approved of the choice.


22. A full page-establishment appeared in the Rand Daily Mail of 19 June 1943, under the headline "Smite opens new block for engineers at University."


25. Fassler's design of the Library is not documented, but it is certainly the same as the one for which the new building was ordered.

26. See the accounts in Denney, "The Woman of the Building," October 1942, p. 239.

27. Fassler, "AAR, January 1943, p. 3-12.

28. Fassler, "AAR, January 1943, p. 3-12.

29. Fassler, "AAR, January 1943, p. 3-12.


31. Fassler, "AAR, January 1943, p. 3-12.


106

62 Letter Reginald Fassler, 11 November 1955 (SAA 116). 63 Fassler was of Swiss parentage. Howie Scottish, Tasmanian Italian, Jewish, and Mennonite was a Jewish war-time refugee from Belgium. For Tasmanian see Curriculum Vitae, c.1972 (for publication of this see SAA August 1985, 38–40). a 1937 modern project for a church SAA, July 1941. Fassler is not a hasty technician.

64 Plesser (0910) 371.


66 For Mexico's wide cultural horizon see Manfred Marcus, Art and Engineering. SAA, May 1945, pp. 89-97.

67 See biography in Artscanada, (self directed) in part on the IBA Archive and notes on the opening of the John Moffat Building in the University Gazette, 1956, 1:18, pp. 4–6.

68 Quoted in "Opening of the John Moffat Building by the Minister for Education, Arts and Science." University of the Western Cape Gazette, 1:19, 11 December 1956, 5-6.

69 The John Moffat Building, University of the Western Cape, Johannesburg, SAA, November 1956, 16-27, unattributed, but with thanks to W.R. Heggie (presumably W.R. Howie) at end. The article "The John Moffat Building: In Conversation Commentaries, 3 (1956), by Professor John Fassler, duplicates some of the text of the more comprehensive SAA.

70 Minutes Building Committee (16 March 1953) B.18/30/14.

71 Central Registry Office (September 1953) B.17/7A. The Auditorium was named after Mrs. Sandland in recognition of her role in the recent Universityowns Festival.


73 Nick Fassler Karamia, in a communication to the author, intimated that her father had been concerned by such a misallocation.

74 Minutes Building Committee (25 April 1956) B.C.68956.

75 Minutes Building Committee (18 June 1956) B.C.7122/56.

76 Lesley Gaul, W.J. Carter and B.S.L. Glaag.

77 Confirmed by Letter Howie/Registrar, 12 September 1956. Hill was replaced by N.J. Preis, an Electrical Engineer, but was retained as consultant for the air conditioning and ventilation of the lecture theatres.

78 Letter Reginald Howie, 8 November 1956 and Howie/Registrar 12 November 1956 (SAA 116).

80 This was contested. Tenders were solicited for in May 1957, and that of J.C. Barrow & Co Ltd. (Ref. E/165/112) accepted in June.

81 Opening of the John Moffat Building by the Minister for Education, Arts and Science. University of the Western Cape Gazette, 1:19, 18 December 1956, 4-6.

82 He described this installation in great detail in SAA, November 1956, 25-26.

83 This solution was innovative, but not without problems, We tested their effectiveness in a sun-filtex by exposing a test blade to the sun, and were happy with the grey shadows it cast on the draughting table top within. Unfortunately, when the sun was high, and poured through the blinds, the shadow by an unexpected optical illusion, turned a less acceptable violet colour.

84 Howie, SAA, November 1956, 21-22.

26 Mia Fassler Karamia has suggested to the author that her father was influenced with respect to the panel cost, the striped columns, and the twelve initial doors, by details of the Allianz Building in Munich, which he visited in 1956. Inward signs that the reflection of the building in the small lake adjoining the Allianz Building would have reinforced Fassler’s determination to have a shallow pool in the East courtyard of the John Moffat Building, for the Allianz Building see (Bauwelt, October 1953, 653 and 666.}