Subjugated South African Buildings: The Bonwit Clothing Factory in Cape Town and the Peri-Urban Areas Health Board Building in Pretoria

Basil Brink

Department of Civil and Chemical Engineering, University of South Africa, Johannesburg Email: brinkbn@unisa.ac.za

Two important and original buildings in the respective *oeuvres* of the South African architects RS Uytenbogaardt (1933-1998) and C Strauss Brink (1920-1992), viz. the Bonwit Clothing Factory (1967) in Cape Town by the former, and the Peri Urban Areas Health Board Headquarters Building (1959) in Pretoria by the latter, have been subjugated to conform with their surroundings. The article presents these buildings as respective examples of two modern architectures, Brutalism and the International Style. In symbolising the brutalisation of factory workers, essentialising the industrial aesthetic-astype, introducing original forms, and using carefully considered materials, the Bonwit Factory is positioned at the pinnacle of Uytenbogaardt's architectural achievements. Strauss Brink's carefully considered combination of sparkling black banding, olive green, thin white stripes, decorative grille blocks, and articulated façades made the Peri Urban building an original, striking, and aesthetically pleasing building. The obliteration of one of South Africa's most important Brutalist buildings as well as one of its original International Style buildings is a loss to South Africa's architectural heritage.

Key words: Brutalism, International Style, subjugation, irreversible adaptive re-use, RS Uytenboogardt, CS Brink

Tot onderdanigheid gedwing: Twee Suid-Afrikaanse geboue, die Bonwit klerefabriek, Kaapstad en die gebou van die Gesondheidsraad vir Buitestedelike Gebiede, Pretoria

Twee belangrike en oorspronklike geboue uit die onderskeidelike oeuvres van twee Suid-Afrikaanse argitekte, RS Uytenboogaardt (1933-1998) en C Strauss Brink (1920-1992), eersgenoemde se Bonwit Klerefabriek (1967) in Kaapstad en laasgenoemde se Hoofkantoor van Buitestedelike Gebiede in die middestad van Pretoria, is in die vroeg een-en-twintigste eeu onderwerp aan gedwonge aanpassing by hul veranderende omgewings. Hierdie artikel belig die geboue as voorbeelde van twee bewegings in moderne argitektuur: Brutalisme en die Internasionale Styl. In die oeuvre van Uytenboogaardt word die Bonwit Klerefabriek vooropgestel as 'n hoogtepunt van sy argitektoniese bereiking. Die gebou simboliseer die ontmensliking van fabriekswerkers, die uitkristalisering van die tipologie van industriele estetika tot die essensie daarvan, die aanwending van oorspronklike vorms en die gebruik van sorgvuldig gekose materiale. Insgelyks dra Strauss Brink se sorvuldig gekose kombinasie van glimmende swart stroke, olyfgroen, dun wit strepe, dekoratiewe roosterblokke, en geartikuleerde fasades by tot die oorspronklike en estetiese bevredigende karakter van die Buitestedelike Gebiedegebou. Die uitwissing van Suid-Afrika se mees belangrike Brutalistiese gebou en een van sy mees bevredigende Internasionale Styl geboue as gevolg van onsimpatieke en onherstelbare veranderinge en verbouings in diens van gebruiksaanpassings, verteenwoordig 'n verlies van Suid Afrika se argitektoniese erfenis.

Sleutelwoorde: Brutalisme, Internasionale Styl, onderwerping, onherstelbare gebruiksaanpassings, RS Uytenbogaardt, CS Brink.

Buildings may be altered over time for functional or financial reasons, and in instances where edifices are conspicuous, they are often subjugated to conform with their surroundings. Two important buildings in the respective *oeuvres* of the South African architects Roelof Sarel Uytenbogaardt (1933-1998) and Christiaan Strauss Brink (1920-1992), viz. the Bonwit Clothing Factory (1967) ("Bonwit"), also known as the Truwell Clothing Factory, Salt River by the former, and the Peri Urban Areas Health Board Headquarters Building (1959) ("Peri Urban building"), also known as the H.B. Phillips Building, by the latter, have been subjugated. A photographic record of these buildings, of which little has been written to date, has been preserved. In 1975 the author, while a student of architecture at the University of Cape Town,

photographed Bonwit. The author inherited 35mm slides of the Peri Urban building taken in 1960 by Strauss Brink.

The objective of this article is to present the Peri Urban building and Bonwit as important respective examples of the International Style and New Brutalism in South Africa. An ancillary objective is to identify these buildings as significant works in the respective *oeuvres* of Strauss Brink and Uytenbogaardt.

The International Style

South African architecture, apart from some vernacular building, has always been derivative of foreign styles; often changed, often misapplied, only sometimes integrated (Prinsloo 1977: 34).

In 1932 Philip Johnson and Henry-Russell Hitchcock curated an exhibition of architecture in the Museum of Modern Art, New York. The work of some fifty architects from sixteen countries, including Le Corbusier, Walter Gropius and Alvar Aalto, but excluding Frank Lloyd Wright's work because of a different personal style, were displayed under the label the "International Style". This highly influential exhibition set the tone of architectural discourse for the next three decades (Khan 2001: 65). Johnson and Hitchcock identified three main aesthetic principles of the International Style:

Volume. Flexibility in plan made possible by a skeletal grid of columns. The surface of the contained volume needed to be a smooth unbroken skin tightly stretched over the building's skeletal frame. Windows should have light metallic frames and roofs should be flat or single-pitch without projecting over facades. However, exceptions to these rules were allowed as these extended the possibilities of the International style, e.g. Mies van der Rohe's Barcelona Pavilion (1929) and Le Corbusier and Pierre Jeanneret's Maison de Mandrot (1929-1932).

Modular regularity. A building's underlying order should be symbolised by structural ordering using equally spaced columns. Asymmetry in the composition of buildings was preferable and curved surfaces could produce the effect of the style.

Avoidance of Applied Decoration. Decoration should be minimal and subservient to the clarity of the whole building to eliminate superficiality. Use of colour should be restrained (Amsoneit 1994: 6; Khan 2001: 67-70).

For Pevsner et al. (1975) the International Style, or what they referred to as the 'International Modern' style, is characterised by:

...asymmetrical composition, unrelievedly cubic general shapes, an absence of mouldings, large windows often in horizontal bands, and a predilection for white RENDERING (Pevsner et al. 1975: 253-254).

In addition to Johnson and Hitchcock's three aesthetic principles and Pevsner et al.'s constituents, International Style buildings usually incorporate the 'Five Points of a New Architecture' that Le Corbusier proposed for modern building design:

Pilotis. Free-standing columns or *pilotis* elevate the building to free the ground underneath for circulation, other uses or continuity of nature

Plan libre. Interior walls can be arranged freely to fit functional demands because the *pilotis*, not load-bearing external and internal walls, carry the load.

Façade libre. Pilotis also liberate exterior cladding from traditional weight bearing constraints, allowing openings to be arranged at will for light, view, climate or compositional needs.

Fenêtre en longueur. Long horizontal windows, one version of the free façade, were often used by Le Corbusier in his villas of the 1920s to create hovering bands of glass against smooth plaster-rendered walls.

Toît-jardin. A functional roof that replaces land lost underneath the building with a terrace and roof garden for relaxation and views (Curtis 1986: 69).



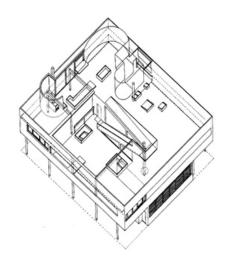


Figure 1 Left: Villa Savoye (1928-1931) at Poissy by Le Corbusier. Right: Axonometric (Google images).

Le Corbusier's five points are clearly evident in his design of Villa Savoye, Poissy (figure 1), as well as several other villas designed by him during the 1920s.

Brutalism

In 1954 the term 'Brutalism' was coined in England to designate the style used by Le Corbusier in his Unité d'Habitation (1952) at Marseilles and the style of architects inspired by such buildings, e.g. Stirling & Gowan in England and Paul Rudolph in the United States (Pevsner et al. 1975: 64). The external appearance of a building in a Brutalist style or 'warehouse aesthetic' was dictated by its different internal functions and its frankly exposed external and internal materials. Shutter-patterned concrete, nearly always used in Brutalist buildings, was raised to the level of a fine art material. In Britain, according to Banham, Brutalism 'became tamed from a violent revolutionary outburst to a fashionable vernacular' (Banham 1966: 89):

Bona fide attempts to re-establish architecture of principle were inevitably transformed by the rapid propagation of the more superficial elements of each attempt. For example, Brutalism started as an ethic and a mode of work and degenerated into a formalism based on bad brickwork and rough concrete (Prinsloo 1977: 38).

The architects Alison and Peter Smithson's 'battleship aesthetic' with an exposed steel structure and plumbing for a school building at Hunstanton (1949-1953) gave rise to the phrase 'the New Brutalism'. This term referred both to the *béton brut* shutter-patterned concrete of the Unité d'Habitation in Marseilles and the anti-formalist architectural principles of the Smithsons (Furneaux Jordan 1969: 333-334).

Three decades after Johnson and Hitchcock's exhibition the architect and author Charles Jencks, as becomes clear in text further on, argued against any simplistic and deterministic theory of architecture that contends that there is one inevitable line of development. Jencks felt that architectural historians were either apologists for single traditions, such as the International Style or Brutalism, or prophets of inevitable technological development, which limited the number of actual live traditions (Jencks 1973: 11-14). In this way 'Futurism' and 'Expressionism', as labeled architectural styles, had been excised from architectural theory for thirty years. However, by 1970, according to Jencks (1973: 28), six major 20th century architectural traditions could be identified – "Logical, Idealist, Self-conscious, Intuitive, Activist, and Unselfconscious (80% of Environment?)". In his "Evolutionary Tree, 1920-1970" chronological diagram Jencks placed 'Brutalism' and 'International Style' in much smaller letters than several of his own rather obscure introductions, such as 'Parametric', 'Bureaucratic', 'Fascist', 'War Minimal', and 'Mobile' (Jencks 1973: 28). Four years prior to Jencks' publication, Furneaux Jordan seemed unaware of a 'plurality of modern movements in architecture' when he asserted:

...there are now *two* modern architectures. One is the steel and glass classicism of Gropius and Mies van der Rohe, the other is the *béton brut* of Le Corbusier and the 'New Brutalism' (Furneaux Jordan 1969: 320).

While Jencks recognised that an over-simplification, such as hazarded by Furneax Jordan, creates some conceptual order out of an overwhelming complexity of detail, he underlined a pitfall in doing so:

But unfortunately it [simplifying by selecting and omitting data] often serves to reinforce one ideology – one tradition of development [such as the Modern Movement] – at the expense of live plurality (Jencks 1973: 11).

Within this theoretical context, Furneaux Jordan's identification of two modern architectures is congruent with Bonwit on the one hand, which is an example of the principled architecture of New Brutalism, and the Peri Urban building on the other, which provides an example of original design in the International Style (figure 2).

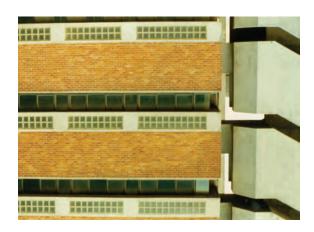




Figure 2

Close ups of Bonwit's Brutalist façade with frankly exposed materials (left) and the Peri Urban building's International Style façade, with plastered and coloured surfaces (right). Different materials, surfaces and textures, as well as projections and set-backs, provide visual interest in each facade. (Unless indicated otherwise, photographs of Bonwit were taken by the author in 1975, and photographs of the Peri Urban building were taken by Strauss Brink in 1960).

A bypassed Bonwit in publications and writings on the oeuvre of Uytenbogaardt

The young Afrikaners, freshly qualified at the architectural schools, were in no way bound by the traditional requirements to which the older architects adhered. They could start on a fresh drawing board and with typical Afrikaner enterprise they set about their task with such a will that they developed something permanent and valuable in certain architectural fields (Anonymous, quoted in *Our First Half-Century 1910-1960. Golden Jubilee of the Union of South Africa.* 1960: 169).

Uytenbogaardt's architectural, urban design and town planning career commenced when he graduated as an architect at the School of Architecture at the University of Cape Town in 1956. His 'starting from first principles' approach to design was already evident in his thesis 'A Marine Biological Centre', as partially illustrated in *Architect and Builder* (February 1957: 34-36) and *S.A. Architectural Record* (March 1957: 26-27). This design approach heightened an emotional and spiritual experience of his buildings, to the point of a Confrontation with Destiny:

There are no soft options. Nowhere is the consumer society pampered. The degree to which this approach is at odds with materialism can be measured by the changes made to Uytenbogaardt's Werdmuller Centre in Cape Town to cosy up the shopping centre. Confronting Destiny while shopping was clearly considered bad for business (Lange 1984: 26).

In A Guide to Architecture in South Africa (1971) Doreen Greig devoted twenty lines to Uytenbogaardt's Dutch Reformed Church in Welkom (1964), an early example of his work, and one sentence only to the later Bonwit:

R.S. Uytenbogaardt's Bonwit Clothing Factory at Salt River, an outstanding example of factory planning, of architectural form and use of colour (sic) (Greig 1971: 101).

More recent research and publications on the *oeuvre* of Uytenbogaardt have tended to focus extensively on his non-award winning Werdmuller Centre (1973) in Claremont, Cape Town, with minimal references to the award-winning Bonwit. The Werdmuller Centre merited 26 pages in *Senza tempo/Timeless*, a book by Giovanni Vio on the work of Uytenbogaardt (Vio 2006: 54-79). Four other Uytenbogaardt buildings were selected for inclusion in the book:

```
Remembrance Garden, Simonstown (1975) - 9 pages (pps. 81-89);
Indoor Sport Complex, University of Cape Town (1977) - 26 pages (pps.90-125);
Hout Bay Library, Hout Bay (1986) - 20 pages (pps.126-145), and
House Uytenbogaardt, Kommetjie (1992) - 20 pages (pps.146-165).
```

In the 1960s two of Uytenbogaardt's buildings were awarded Bronze Medals by the Cape Provincial Institute of Architects (CPIA) - the Hugo van Zyl Shop, Paarl, (1964) (CPIA citation in *S.A. Architectural Record*, June 1965: 41), and the Bonwit Clothing Factory (1967) (CPIA citation in *S.A. Architectural Record*, May 1968: 13). Again, Bonwit chalked up no more than a note in the incomplete and at times inaccurate biography of Uytenbogaardt on the final page of Vio's book (Vio 2006: 167).

In 1987 the Institute of South African Architects (ISAA) gave Awards of Merit to two Uytenbogaardt buildings – a Community Hall in Belhar and a Sports Stadium at the University of the Western Cape (*Architecture SA* 1987: 28). Disregarding these and previous award-winning buildings, Vio included the Hout Bay Public Library, which received an ISAA Award of Merit in 1991 (*Architecture SA* November + December 1991: 20), as the only award-winning building by Uytenbogaardt in his book. It seems Vio's personal preferences held sway when he included Uytenbogaardt's unpremiated buildings and omitted those that had won awards.

Bonwit was not discussed in Noëleen Murray's PhD (2010), in which she conducted a critical inquiry into Uytenbogaardt's buildings and urban designs. Murray contextualized Uytenbogaardt's work within apartheid modernity, and critiqued the Dutch Reformed Church in Welkom (1964), (also Murray 2005); Werdmuller Centre (1973), and an urban design for Belhar (1982) in separate chapters.

The Werdmuller Centre – A Derivative Design

The Werdmuller Centre² ("Werdmuller"), a shopping centre and offices for LHC Property in the Cape Town suburb of Claremont, was completed in 1973 (Vio 2002: 167). Soon after completion Werdmuller was under threat of demolition because the centre could not produce the return on investment required by its owners, Old Mutual (*Architect & Builder* 1978: 24). This trend persisted. In 2006 Vio alleged that, while a number of commuters walk to and from Claremont through Werdmuller because this route is sheltered:

...almost nobody is interested in buying anything from its shops, of which there are only a few nowadays... (Vio 2006: 23)

Since its completion the centre was controversial. Already in a 1974 discussion with students, Ivor Prinsloo, the newly appointed Head of UCT's School of Architecture, played down the extent to which Uytenbogaardt had been influenced by Le Corbusier when designing Werdmuller:

Roelof is not copying, he is showing a fine understanding of Corb (Brink 1974).

Students at the School of Architecture, including the author, were acutely aware of Le Corbusier's strong influence on Uytenbogaardt, which Uytenbogaardt made no secret of:

[Le Corbusier was] one of the most innovative space makers we have known. Even making the drawings [for Werdmuller] I was influenced by him (Uytenbogaardt quoted by Vio 2006: 75).

In deference to Le Corbusier, Uytenbogaardt adhered closely to the Master's five points – the free-standing columns, freed-up plans, facades arranged at will, horizontal windows and usable roof areas – when designing Werdmuller. The design was 'strongly influenced' by, demonstrated a too 'fine understanding' of and too closely copied or plagiarized the Carpenter Center for the Visual Arts (1959-1963) at Harvard University (Le Corbusier 1965: 54-60; Curtis 1986: 216-217), with elements of the Millowners' Association Building, Ahmedabad, India (1951-54) (Le Corbusier 1967: 86-89; Curtis 1986: 205-207) and House Shodhan (1951-54) (Le Corbusier 1967: 90-92; Curtis 1986: 226-228) also discernible.









Figure 3

Top Left: North Façade with angled sun screen fins – demolition by neglect? Top Right: Deserted internal ramp. Bottom Left: Ramp oblique to column grid as Carpenter Centre. Bottom Right: Suspended sculpted box. (Photographs by the author, 26 October 2011).

A comparison of the Carpenter Center and Werdmuller reveals the extent to which Uytenbogaardt was influenced. A description of the Carpenter Center in Le Corbusier's *oeuvre complète 1957-1965* could easily be mistaken for Werdmuller:

...the mutual interpenetration of exterior and interior space, the use of rough concrete, a ramp which connects two streets above the third floor, free-standing structural columns on each of the five floors and brise-soleil (Le Corbusier 1965: 54).

Werdmuller and the Carpenter Centre both have asymmetrical sinuous curvilinear shapes in opposition to straight walls; a ramp oblique to the column grid; angled sun screens, and the 'casting in concrete' of 'shortest path' pedestrian routes.

Despite failing financially and qualifying as one of Uytenbogaardt's less original works, Werdmuller has an important place in local and international modern architecture. It is a deeply conceptualized and consistently designed building that matches and extends on Le Corbusier's tenets in a unique way. The building has been read in various ways - an opposition to many air-conditioned stereotypical shopping malls; a *tour de force* in three-dimensional architectural space-making, a benchmark in the use of sculptural reinforced concrete, or as an unwitting reinforcement of apartheid modernity (Vio 2006; Wolff 2009; Townsend 2010; Murray 2010). However, it may no longer be possible for the architectural fraternity to visit and experience the building first hand. In mid-October 2011 Heritage Western Cape gave official notification of the proposed demolition of Werdmuller, called for a historical impact assessment report (HIA)

in terms of the provisions of section 38(2) (a) of the National Heritage Resources Act, and requested that individuals or organisations with an interest in this matter should register as Interested or Affected Parties (Wolff 2011).

Bonwit - a Brutalist Masterpiece

While Werdmuller leans heavily on Le Corbusier, the same cannot be said for Bonwit. The Cape Provincial Institute of Architects (CPIA) awarded its Bronze Medal Award to the "Truworths Factory, Observatory" (sic), an outstanding building in the year 1967:

In the field of industrial architecture this building makes a valuable contribution. Its basic concept is directed three-dimensional organization of space for the best distribution of the users of the building. Considerable ingenuity has been employed to allow factory workers to get quickly to and from work without the use of lifts or other expensive devices. This is achieved by bringing the staff entrance to the middle of six floors. On each floor the arrangement of staff facilities, administration and services is handled with the same careful attention to the nice balance between areas of work and areas for service and movement. This has been achieved despite the difficulty arising from the need for allowing for major future expansion.

The design of the structure is consistent throughout. The materials are used in positive and robust forms which express the structural system and provide good wearing surfaces.

The skill with which the very complicated multi-storey relationships have been handled makes little of minor difficulties in detailing. Even if this building were not as efficient a technical solution than it is, it would be important as representing a phase in the evolution of architecture in this country (CPIA citation in *S.A. Architectural Record* May 1968: 13).



Figure 4
'Truworths Factory, Observatory' (sic). Photograph accompanying CPIA's Bronze Medal Award citation.
(S.A. Architectural Record May 1968: 13).



Figure 5 Bonwit from the South.

Bonwit is located between Brickfield and Pickwick Roads in Salt River, Cape Town. The area has a number of plastered and painted International Style and Art Deco clothing factories, e.g. the Rex Trueform, Monatic and Duchess buildings. Their painted and plastered exteriors present amiable, 'socially acceptable' white façades that conceal generally less pleasant working conditions behind them. Bonwit's Brutal 'honesty of expression' (Raeburn 1982: 273) did not bow to such 'white lies'.

In its original form, viewed from the south at a distance, Bonwit resembles a large 'manufacturing machine' (figure 5). Staircases on either side of the building appear to turn in on one another as if working parts of a mechanical device within which the sweat equity of factory workers 'oils' interlocking cogs and wheels. This is a striking reminder of the 20th Century machine age.

In the silent film *Modern Times* (1936) a conveyor belt transports Charlie Chaplin into the workings of the machine. He is turned and rotated over and under cogs and wheels (figure 6) before the machine is reversed and he emerges from the same aperture into which he disappeared. Though physically unhurt, Charlie is now a mentally unhinged albeit playful menace to people and machines around him. Between pirouettes he approaches a secretary in the factory and a woman outside the building to tighten the buttons on their garments with his spanners. The latter calls a policeman and Charlie runs back into the factory, after punching his time sheet out of induced habit. He turns wheels, dances, pulls levers and swings on a gantry chain to evade co-workers. Charlie is eventually caught and removed to a hospital to recover from his nervous break down. Did Uytenbogaardt intend that Bonwit, with its machine-like appearance and an entrance that resembles a throat on plan (figure 11), should symbolize the transformation of workers who are swallowed and regurgitated by his building?



Figure 6
Chaplin becomes part of the machine in Modern Times (1936)
(Google images).



Figure 7
Chaplin frightens a woman outside the factory and is chased by a policeman (Modern Times) (Google images).

The factory in *Modern Times* had inhumanly scaled high face brick walls and large industrial windows, typical of most factories in the 20th century. Similarly, Uytenbogaardt's decision to design Bonwit in the Brutalism style essentialises the industrial aesthetic-as-type, expresses the building's functions, and conveys a sense of the hard, unforgiving and alienating nature of factory work. Forbidding surfaces and materials are not 'smoothed over' as with other more genteel factory buildings. In all, a painful beauty.



Figure 8
Entrance to Bonwit.

Steps leading to Bonwit's main entrance (figure 8) narrow progressively evoking a sense of being compressed as one approaches the building. As one moves closer to the entrance, forbidding fortress-like forms loom and appear to threaten. Narrow horizontal slots in off-shutter concrete chamfered walls resemble bunkers - the architecture of fortification (Mallory & Ottar, 1973). Pressure, expectation and foreboding are induced as one enters the 'machine'. The *ensemble* of materials, forms and scale convey the impression that one might be transformed in this 'machine', as happened to Chaplin in *Modern Times*.

Bonwit's possible design influences

Tony Lange, who accompanied Uytenbogaardt on a two-week tour of Frank Loyd Wright's buildings in the United States in 1963, and Don Tindale, who was a student in Uytenbogaardt's 1963 UCT class, both believe that Uytenbogaardt was influenced by Louis Kahn (1901-74) when conceptualising Bonwit. They contend that Bonwit's external vertical 'service' staircases contrast with the 'served' horizontal factory floors in similar fashion to external face brick 'service' shafts and the cluster of 'served' square-plan laboratory towers found in Kahn's Richards Medical Research Centre (1957-1961), University of Pennsylvania, Philadelphia (Banister Fletcher 1975: 1290):

The Medical Research Buildings exemplified Kahn's distinction between what he called 'served' spaces as opposed to the 'service' spaces: the service towers are encased in brick and are designed in a vertical, slender way, whereas the main glazed laboratories display a horizontal emphasis (Raeburn 1982: 285).

Another building that might have influenced Uytenbogaardt when designing Bonwit is Stirling & Gowan's Engineering Building (1959-1963) at Leicester University. This building is:

...an immaculate instance of functionalism, as it was understood by protagonists of the machine aesthetic half a century ago (Banister Fletcher 1975: 1308).

The Engineering Building's composite structure is considered to be a *tour de force* that juxtaposes and fuses the contradictory 'formalist' and 'populist' aspects of the New Brutalist aesthetic. Canonical forms of the Modern Movement are combined with elements drawn from the 19th century industrial glass and brick vernacular of Stirling's native Liverpool, as well as Brutal structural components, such as the exposed diagrid floors drawn from Kahn's Richards Medical Research Laboratories (Frampton 1980: 266-267).





Figure 9
Engineering Building (1959-1963), Leicester University by Stirling & Gowan (Google images).

Several phrases used to describe the Leicester University Engineering Building in McKean's (1994) monograph are equally applicable to Bonwit:

Rough but suave, painful but beautiful ... makes even Corbusier seem soft. ...unprecedented little masterpiece ...it stands alone ...amazes with an intense power (McKean 1994: 5).

...dead-pan concern with programmatic analysis, economy and logic ...forms are neither anonymous nor gratuitous and fanciful ...circulation space ..is equally clearly articulated (McKean 1994:29).

As we have seen, different functional areas therefore formed different shapes, are constructed in different ways and have different visual characteristics internally. ...So Stirling & Gowan express the elements as clear, primary volumetric statements, held together by that most powerful negative form, the evanescent circulation. ...It seems instinctively recognised that this building lodges in the memory as a collection of complexly wrapped, completely impenetrable forms (McKean 1994: 33).

Kant's definition of the sublime is apposite here as to few other buildings: that aesthetic satisfaction which includes as one of its moments a negative experience, a shock, a blockage, an intimation of mortality. ...Clearly, Leicester couldn't be followed. It was the end of Brutalism – the last illustration in *The New Brutalism* (McKean 1994: 44).

Lastly, recurrent comparisons have been made between Brutalism and the architecture of fortification and aggression - Second World War gun emplacements, control towers, observation posts, and pill boxes along the British and German-occupied French coast (Mallory & Ottar 1973). In July 1967 the British architectural journal *AD* (Architectural Design) criticized 'Culture Bunkers':

The form and finishes of military installations are being used for the most hallowed of new buildings – cultural and civic centres. Throughout Europe and even in America architects are setting up their culture bunkers. The Queen Elizabeth Hall in London is not an isolated example (*AD* cited in Mallory & Ottar 1973: 279).

While Mallory & Ottar (1973) argue against a direct influence of fortification design on twentieth century Brutalist architecture, they foreground an 'interesting coincidence' in Le Corbusier's innovative use of off-shutter concrete in his Unité d'Habitation (1948) at Marseilles, where he:

...abandoned the pre-war fiction that reinforced concrete was a precise "machine age" material and exploited rough wooden formwork to form what he called 'beton brut', a crude surface which reflected the grain and defects of the timber. The events which prompted Le Corbusier to make such a dramatic change in his attitude to concrete between 1939 and 1948 are uncertain.

...it is an interesting coincidence that this changeover period coincided with the construction of the Atlantic Wall along the French coast – defenses in which the textual possibilities of rough boarded concrete were so clearly indicated in its bunkers (Mallory & Ottar 1973: 279-281).

Whether he copied preceding fortification architecture or whether it was merely an interesting coincidence, Le Corbusier was the undisputed pioneer of *béton brut* - the 'brutal' use of offshutter concrete in habitable buildings. The Unité d'Habitation was:

...the first genuinely post-war building, in the sense that its innovations separated it definitively from Modern Architecture before 1939 (Banham 1966: 16).

Bonwit adhered to Brutalism's aesthetic tenets with its off-shutter concrete internally and externally, face brick walls, fortification-like shapes and slots.



Figure 10 Similarities between Second World War Bunkers (left and right) (Google images) and Bonwit (centre).

In symbolising the brutalisation of factory workers, essentialising the industrial aesthetic-astype, introducing original forms, and using carefully considered materials, Bonwit is positioned at the pinnacle of Uytenbogaardt's architectural achievements.

The making of Bonwit

Fabio Todeschini, Emeritus Professor of Architecture at UCT, finalised Bonwit's drawings for approval by the Cape Town City Council from mid-1964 to end-1964. From mid-1965, after graduating with a B Architecture degree at UCT with Uytenbogaardt as his thesis supervisor, Todeschini headed up the team that was responsible for the working drawings and the supervision until the building contract was completed in 1967 (Todeschini 2011). While Todeschini could not confirm who had worked on particular drawings, Heinrich Kammeyer, who worked on Werdmuller, assumed that 'P.S.' was Peter Schneider; 'D.W.' was Derek Walker, (who was "... besotted with the building"), and 'P.J.P.' was Pieter Pelser, who partnered Uytenbogaardt in the design of the award-winning Hugo van Zyl Shop (1964) in Paarl (Kammeyer 2011; *Architect and Builder* 1965: 16b). Kammeyer recalled that Ian Macaskill, Tony de Sousa Santos and Dennis Playdon also contributed to Bonwit's realisation. Further research would verify whose

initials appear on the drawings, e.g. G.E.H.; W.C.W.; L.H., and P.A.S. in addition to the initials already mentioned; uncover how the design evolved, and who contributed what during Bonwit's realization process in Uytenbogaardt's studio.

The design of Bonwit

While Uytenbogaardt adhered closely to Le Corbusier's five points when he designed Werdmuller, these are almost entirely absent in Bonwit. The building is not elevated on *pilotis* – it sits solidly into the ground. Plans are freed up through the use of large spans with columns *in antis*, not in a grid. The framed reinforced concrete structure supporting window, brick and glass block infill is alternated with load bearing concrete walls. The roof area, dominated by a large water tank and lift motor rooms, is not intended for functional or recreational use. Louis Kahn's influence, as contended by Lange (2011) and Tindale (2011), is seen in Bonwit's plan, which differentiates 'service' and 'served' functions.

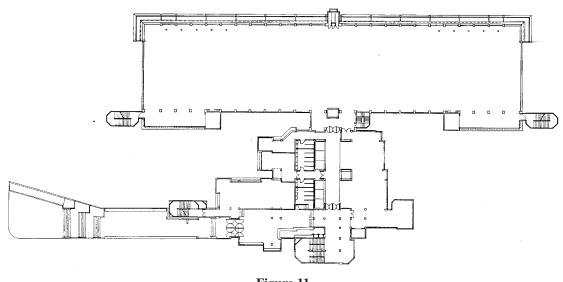


Figure 11 Ground Floor Plan.

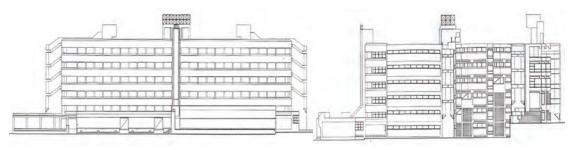


Figure 12 Left: North Elevation of Factory block. Right: West Elevation (Uytenbogaardt 1965-66).

Bonwit's Ground Floor Plan (figure 11) shows two practically free-standing buildings that are linked by a narrow circulation area. The southern smaller 'service' block, designated as the 'Administration Block' or 'Amenities block' on the working drawings (figure 11, and figure 12 Right), houses the entrance foyer, ablutions, some offices, cleaners' rooms, storage areas, and

lifts (Uytenbogaardt 1965-66). The large northern 'served' building is an open rectangular area where manufacturing of garments takes place in a flexible 'open plan' format, with an almost free-standing concrete solar screen eliminating heat gain (figure 13 Top right).









Figure 13

Top left: Southern smaller 'service' Amenities Block. Top right: Large northern 'served' Factory Block. Bottom left: Service and served blocks from the south east. Bottom right: Blocks from the south west.

Sewing, stitching, buttoning machines and work tables, all on castors, could be moved into new arrangements and clusters by the garment workers to increase manufacturing efficiencies (Tindale 2011). Bonwit supported an empowering working environment where workers could control and move machines to better suit them and the manufacturing process. In contrast, in the *Modern Times* factory no interference with or adjustments to the huge stolid machine by disempowered workers were allowed. Subjugated workers were forced to accept inhumane and un-ergonomic conveyor belt speeds without question or objection.

In designing Bonwit's vertical circulation, Uytenbogaardt separated staircases from their 'served' areas to clearly express their 'service' function.





Figure 14
Left: Escape stairs on eastern side of Factory Block. Right: Fire escape stairs to Amenities Block.

Balustrade up-stand beams to a height of 2,9 m above staircase landings are used to form narrow 610mm open slots on the external sides of the 'escape stairs', so maximizing shelter from rain, protection from strong winds and generating feelings of safety and containment when using the stairs.³ The resultant highly original form animates the elevations and adds a unique aesthetic to the overall appearance of the building.

Bonwit in 2011 – Irreversible Adapted Re-use

In 2006 plans were afoot to irreversibly adapt Bonwit for re-use. In Cape Town, the centrally-positioned suburbs of Woodstock and Salt River experienced steady redevelopment in recent years, with obsolete or old buildings being renovated to attract new residents and professional people (de Beer 2011). In mid-2006 Swish and Spearhead Properties bought Bonwit to convert it into a mixed use development, and expected to have sold all apartments in the refurbished Bonwit by the end of 2006. Anthony Wolpert, the development manager at Spearhead Properties, explained why Bonwit was ideal for this type of redevelopment:

It is an exceptionally strong seven-storey concrete structure with large open-plan areas supported on 1m-deep beams. This means a minimum of demolition work is necessary (Wolpert quoted in *Sunday Argus*, 5 November 2006).

After 2006 New Brutalism was tamed when face brick and concrete surfaces where plastered and painted, thereby obliterating Uytenbogaardt's original design intentions (figure 14 top right and left). Developers managed to proceed with a 'prettification project' of this award-winning building by either deftly side stepping any opposition, or by an under-the-radar strategy whereby "one asks forgiveness, not permission". By way of contrast, there would certainly have been a huge outcry if Stirling & Gowan's Engineering Building, Le Corbusier's Carpenter Centre or Kahn's Richards Medical Research Center were defaced in this manner.







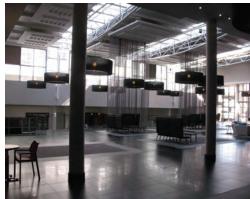


Figure 15

Top left and top right: The cover-up – painted and plastered off-shutter concrete and face brick walls adapt and re-use Bonwit into the Twilight Zone style. Bottom left: Upper East Side Hotel to the south of Bonwit. Bottom right: New Atrium linking the hotel to Bonwit.

Nevertheless, the Upper East Side Hotel to the south of Bonwit (figure 15 Bottom left) was completed in time for the 2010 Fifa World Cup. The addition of the hotel impacted even more negatively on Bonwit by erasing almost all semblance of what had been.

The Peri-urban Areas Health Board Building – an International Style icon

Strauss Brink, who was 13 years older than Uytenbogaardt, graduated at the School of Architecture, UCT in November 1942 – see Footnote 1. His women's residence 'Asterhof' (1957) at UP, later complemented by two identical buildings, and the Peri Urban building were featured in the local architectural publication *S.A. Architectural Record* (January, 1960: 20-23; May, 1961: 9-15; November 1965:48; December 1965: 50), as well as in the British architectural journal *The Architectural Review* (October 1959: 185-186). Doreen Greig acclaimed the residences in her book *A Guide to Architecture in South Africa* because they "...set a high standard for such buildings" (Greig 1971: 203), and she also expressed admiration for the Peri Urban building, as cited further in the text. However, unlike Uytenbogaardt's *oeuvre*, little has been published on Strauss Brink's work to date, a gap which this article begins to fill.

In the early 1960s Strauss Brink proposed that more buildings in South Africa should be designed with 'absent centres' - courtyards or courts with water features, as found in some Cape Dutch and Mediterranean houses, as well as in the historic Roman city Pompeii. Secluded and peaceful courtyards would provide spaces where one's spirit may be re-invigorated (Strauss Brink early 1960s).

In keeping with his vision for South African buildings, whether large or small, courtyards enclosed on four sides or partially enclosed courts, recur in Strauss Brink's architecture. His extension to the Administration Building (1956) at the University of Pretoria (UP), now the Mathematics Building, is arranged around an open courtyard (Rautenbach 1960). When he converted a house into his office in Blood Street, Pretoria, he re-roofed the building around an open courtyard with a fountain and a replica statue of the faun in the House of the Faun, Pompeii. The design of Tugwell Hall (women's residence, 1972) and Leo Marquard Hall (men's residence, 1974) at UCT's Lower Campus, Rosebank consists of three semi-circular wings, each wrapped around a court that is open at one side. Strauss Brink's design for the Peri Urban Areas Health Board's offices (1959), located on the corner of Bosman and Schoeman Streets in Pretoria, was no exception – the U-shaped International Style building encloses a court open to the street (figure 16).



Figure 16 View to Bosman Street from the Peri Urban building's open welcoming court.

The 1956 scheme for the Peri Urban building

Strauss Brink was commissioned to design the Peri Urban building in 1956, and tenders for construction of the building were to be called for by the end of that year (*The Pretoria News* 27 August 1956). A 1956 perspective of the proposed building (figure 17) differs substantially from the building as completed in 1959 (figure 18).



Figure 17

'The architect's perspective [by C.B. 'Swannie' Swanepoel who worked with Strauss Brink on this building] of what the new headquarters of the Peri-Urban Areas Health Board will look like when it is completed.' (The Pretoria News August 27 1956).

In 1956 a plain International Style building was initially envisaged with no fenestration on its western gable and with white horizontal bands between windows. The proposal adhered closely to Johnson and Hitchcock's three aesthetic principles of the International Style (Amsoneit 1994:6; Khan 2001: 67-70). *Volume* is made visible by exposing columns on the western side of the building. Horizontal bands resemble 'smooth unbroken skin tightly stretched over the building's skeletal frame'. Windows have light metallic frames and the roof is flat without projecting over the facade. While columns are equally spaced in terms of *modular regularity*, asymmetry is mostly absent at this stage. *Applied decoration* is restrained and the use of colour appears to be absent. While the perspective illustrates a building that closely conforms to the aesthetic tenets of the International Style, the 1956 scheme, barring some visual interest created by the exposed columns and a mezzanine slab on the western side, is lacklustre.

It seems that delays were experienced in commencing with the construction of the building, as it was completed more than two and a half years after it was supposed to have gone to tender at the end of 1956. At the beginning of May 1959 226 employees of the Peri-Urban Areas Health Board moved into their new office building. Six months after its completion, the building was featured in a special Commonwealth issue of *The Architectural Review* (1959: 185-186), and in 1960 a photograph of the building appeared in *Our First Half-Century 1910-1960* (Anonymous 1960: 172).





Figure 18

Left: "Pretorius Street, (sic) Pretoria with its Jacarandas and modern office blocks" (Frameworthy postcard, 1963). Right: "The H.B. Phillips Building in Pretoria, seat of the Transvaal Board for the Development of Peri-Urban Areas." (Transvaal 1961-1971: 58-59).

In the 1960s and 1970s tourist shops in Pretoria stocked the *Frameworthy* postcard (figure 17, left), indicating that this street view was considered to be a worthy souvenir of the city. A decade later a full-page colour photograph of the building featured in the Transvaal Provincial Administration's book commemorating its growth and progress (figure 18, right), a choice which underlined its significance as a notable contribution to Pretoria's modern architecture.

The Peri Urban building's aesthetic

Differences between the August 1956 perspective (figure 17) and the building as completed two years and nine months later in May 1959 (figure 18) indicate that Strauss Brink made significant changes to the aesthetic of the building during this period. In doing so, he invented some new International Style aesthetic rules, while reinforcing others. White horizontal bands between window strips in August 1956 now had a black *marmoran* finish with tiny sparkles, unusual and unique for an International Style building. White vertical stripes on an olive green background and white ornamental grille blocks contributed to the original aesthetic of the façades.

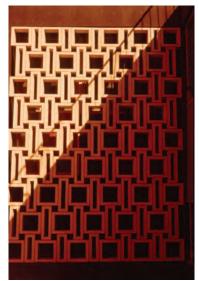






Figure 19

Left: Decorative grille blocks in front of a duct. Middle: Main entrance. Right: Stair shaft with decorative vertical white stripes on green background.

By using decorative grille blocks, colours other than white and applying thin vertical decorative stripes Strauss Brink danced on the compound walls of the Protectorate of the International Style. The unstated rule was 'you can have any colour as long as it's white'. Some members of the Protectorate might have ruled against the Peri Urban building's 'superficial' applied decoration, which was not entirely 'subservient to the clarity of the whole building'. Others might have been in favour of the buildings decorative elements, because these had been applied in a 'restrained' manner. Regardless of disagreements within the Protectorate, Greig (1971) believed that the building's aesthetic and 'personality' appealed to passers-by and occupants:

A building for the public and for administration with a personality all of its own which brings pleasure to passers by and those who use it and work in it. Even people who say they "can't stand this modern stuff" (and there are still a few) appreciate this architect's lively approach to the design of a city building and decorative use of colour in modern materials.

The unusual colours of white and olive green in the [façade] pattern are combined with severe black [horizontal] wall bands which emphasise the delicacy of the fenestration. South American (sic) sunshades and a garden on the roof over the high banking hall provide the street scene with a new dimension of architectural experience (Greig 1971: 207).

A carefully considered combination of sparkling black banding, olive green, thin white stripes, decorative grille blocks, and articulated façades made for an original, striking, and (for many) aesthetically pleasing building. The conspicuous belle of the ball stood out from surrounding plainer walls without flowers.



Figure 20 Left: View on Bosman Street pavement. Right: The articulated façade.

Whereas the Brutalist Bonwit may be read as a symbol of a *Modern Times* machine with workers as its moving parts, the Peri-Urban building's unprecedented International Style aesthetic suggests Progress and Efficiency to be attained by its motivated office workers, key contributors to a culture of modernity.

The design of the Peri Urban building

While the Peri Urban building's aesthetic challenged one of Johnson and Hitchcock's International Style principles that *applied decoration* should be avoided, its design accorded with their other two principles, as elucidated by Amsoneit (1994: 6) and Khan (2001: 67-70).

As in the 1956 scheme, the *volume* of the U-shaped building, built to a height of ground level plus seven storeys in its northern section and ground level plus four storeys in its southern section, is revealed by exposing columns on the western side and in the court. The surface of the contained volume – the horizontal bands between window strips - seems to be stretched over the building's skeletal frame. Roofs are flat and do not project over the facades, and the building's underlying order is revealed by the *modular regularity* of its columns.

Asymmetry is reinforced by articulating the façade with projections and set-backs, such as the grille blocks screening a duct, as well as by continuing the horizontal bands around the north

western corner. The horizontal bands appear to be cantilevered, but closer inspection reveals that small balconies separate the anchor-end of the bands from a solid surface on the west façade (figure 18 Left), heightening a gravity-defying effect.

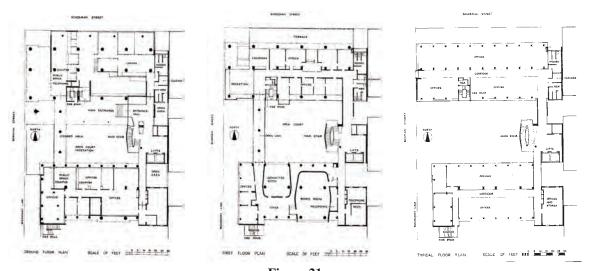


Figure 21 Left: Ground Floor Plan. Middle: First Floor Plan. Right: Typical Floor Plan (S.A. Architectural Record May 1961).

The Peri Urban building's plans (figure 21) reveal that Strauss Brink, as did Uytenbogaardt with Werdmuller, closely followed Le Corbusier's five points, as for example elaborated on by Curtis (1986:69). The north-western section of the building is elevated on *pilotis* to free the ground underneath for 'corner cutting' circulation. Interior walls are arranged freely to fit different functional demands, such as varying office sizes, board rooms and public interface areas (figure 21, Middle and Right).

Pilotis are used to liberate facades from traditional weight bearing constraints, with openings arranged at will for light, view and compositional need. Long horizontal windows, as used by Le Corbusier in his villas of the 1920s, create an impression of bands of glass hovering in plaster-rendered black bands. The roof over a large ground level hall, which projects on the northern façade, is usable with a greened terrace that affords relaxation and views behind a railing (figure 18, Left and Right).









Figure 22

Top left: Curved main stairs and stair well. Top right: View of circulation area adjacent to main staircase.

Bottom left: Board Room, First Floor. Bottom right: Public interface hall, Mezzanine Level

(S.A. Architectural Record May 1961).

The northern side of the main stair in the court is partially expressed on plan (figure 21 Middle and Right). However, the staircase is partially concealed in a shaft (figure 19 Right) within which the stair is animated by curving the flights around a convexly arced stairwell (figure 22, Top left).

C.B. 'Swannie' Swanepoel made a substantial contribution to the realization of the building, as well as producing at least two presentation perspective drawings, the one as depicted in figure 16 and another of the final proposal, which is housed in UP's School of Architecture. The architect Sam Pauw also worked on the building before graduating at the School of Architecture, UP (Pauw 2011). Further research into the Peri Urban building's design process may establish how the design evolved in Strauss Brink's studio, and who the other contributors were.

Strauss Brink was not involved in the 1980s when three additional floors were added to the southern section of the building, raising it to the same height as the northern section. Drawings were not privately preserved, therefore files in the City of Pretoria's Building Plan Scrutiny Department and in the archives of the Peri Urban Health Board are the most likely localities to source these.

The Peri Urban Building in 2011

The Peri Urban building in the central business district of Pretoria, completed some eight years before Bonwit, was also subjugated.





Top left and top right: The Peri Urban building now over-painted in off-white 'cream'

Bottom two images left of centre: Palisade fence (with small gate) bars access to the court and entrance.

Bottom two images right of centre: View to and view from entrance in greened court.

(Photographs by the author).

'Improvement' of the Peri Urban building - painting cream conformity over the original black finish - is reversible. However, given the apparent desire to mute perceived visual 'black noise', it seems unlikely that this building will be restored to its original more conspicuous colour. Bonwit's plastering and painting could also be reversed, though at greater cost. The Brutalist building's visual 'noise' was muted with a vengeance, because it seems that developers are convinced that their customers would rather have a Twilight Zone Style than to Confront Destiny.

Conclusion

With the advent of the new millennium, the intended aesthetics of Bonwit and the Peri Urban building were subjugated to fall in line with perceived market expectations (Bonwit) and common comfort zones (Bonwit and the Peri Urban building). A touch too Brutal and disturbing Bonwit required radical rehabilitation to camouflage and 'prettify' it into an unrecognizable version of its real self - but beware, Bonwit is still in there, fighting to get out.

Cream-coloured over-painting of the Peri Urban building's black sparkling *marmoran* surfaces obliterated one of its most unique and original attributes. Duly subjugated and isolated behind a palisade fence, it no longer stands out, is unwelcoming and now more closely resembles 'just another' International Style building. The obliteration of one of South Africa's

most important Brutalist buildings, now practically impossible to undo, and one of its original International Style buildings, is a loss to South Africa's architectural heritage. Cold comfort could, however, be taken in the photographic record which preserves 'the way they were'.

Notes

- 1 Christiaan Strauss Brink and Roelof Sarel
 Uytenbogaardt were both from Afrikaans
 backgrounds, graduates at the School of
 Architecture, University of Cape Town (UCT),
 undertook overseas post-graduate studies and
 were Professors in UCT's School of
 Architecture and Planning. Their biographies
 are available at http://www.artefacts.co.za
- Wolff, I. 2009. 'Werdmuller Centre an artifact of an ephemeral context.' *SA Journal of Art*
- History. volume 24, number 1. 75–86. This article critiques Werdmuller and has copious illustrations of the building. Available at http://www.journals.co.za/ej/ejour_sajah.html 2009

Works cited

- Amsoneit, W. 1994. *Contemporary European Architects*. Volume I. Köln: Taschen.
- Anonymous. 1960. 'South African
 Architecture in the Twentieth Century'.
 Chapter in *Our First Half-Century*1910-1960. Golden Jubilee of the Union
 of South Africa. Johannesburg: Da
 Gama Publications. 168-172.
- Architect and Builder. 1965. 'Cape Institute Awards its Medal.' April. 16b
- Architect and Builder. 1968. 'Cape Institute's Medal Winners - Truworths factory, Observatory (sic), architect: R.S. Uytenbogaardt.' April. 17.
- Architect and Builder. 1978. 'Shopping Centre Under Attack.' November. 24.
- Architecture SA 1987. 'Community Hall at Belhar' and 'UWC Sports Stadium' ISAA Awards of Merit.

 November+December. 28.
- Architecture SA 1991. 'Merit Awards 1991: Cape. Uytenbogaardt & Rozendal. Hout Bay Library.' November+December 1991:20.
- Banham, R. 1966. *The New Brutalism*. London: The Architectural Press.

- Banister Fletcher. 1975. *A history of architecture*. Eighteenth Edition (revised by J.C. Palmes). London: The University of London Athlone Press.
- Brink, BN. 1974. Personal recollection while a fifth year student, School of Architecture, University of Cape Town.
- Curtis, WJR. 1986. *Le Corbusier: Ideas and Forms*. Oxford: Phaidon Press Limited.
- De Beer, J. 2011. 'Woodstock attracts leases.' *The Star.* 5 September.
- Frameworthy Postcard. 1963. 'Pretorius Street, (sic) Pretoria with its Jacarandas and modern office blocks.'

 Johannesburg: Frameworthy Publications.
- Frampton, K. 1980. *Modern Architecture: A Critical History*. Reprinted 1982. New York and Toronto: Oxford University Press.
- Furneaux Jordan, R. 1969. *Western Architecture*. Reprinted 1988. London: Thames and Hudson.
- Greig, D. 1971. *A Guide to Architecture in South Africa*. Cape Town: Howard Timmins.

- Jencks, C. 1973. *Modern movements in architecture*. England: Penguin Books.
- Kammeyer, H. 2011. Telephonic interview with author. Johannesburg. 26 July 2011
- Khan, H-U. 2001. *International Style. Modernist Architecture from 1925 to*1965. Köln: Taschen.
- Lange, A. 1984. 'Sex, Politics, Religion and Architecture.' *Architecture SA*. Cape Town: George Warman Publications. March/April. 24-26.
- Lange, A. 2011. Interviews with author. Johannesburg. 20 April, 6 & 12 May.
- Le Corbusier. 1965. *Oevre complète 1957-1965*. Vol. 7. Zurich: W Boesiger.
- Le Corbusier. 1967. *Le Corbusier 1910-65*. Zurich: Edition Girsberger.
- Mallory, K., & Ottar, A. 1973. *Architecture of Aggression*. England: Architectural Press.
- McKean, J. 1994. *Leicester University Engineering Building*. London: Phaidon Press.
- Murray, NF. 2005. 'Spaces of Discipline/
 Disciples of Space: Modern
 Architecture and Uytenbogaardt's
 Dutch Reformed Church in Welkom,
 South Africa.' Programme for Science
 Studies in the South. Seminar,
 University of Cape Town.
- Murray, NF. 2010. 'Architectural modernism and apartheid modernity in South Africa: a critical inquiry into the work of architect and urban designer Roelof Uytenbogaardt.' Unpublished PhD Thesis. Department of African Studies, University of Cape Town.
- Pauw, S. 2011. Telephonic interview with author. 18 July.
- Pevsner, N., Fleming, J. and Honour, H. 1975. A Dictionary of Architecture. London: Allen Lane, Penguin Books Ltd.

- Prinsloo, I. 1977. 'Architecture and the Dialectics of Social Practice'. *ISILILI sam sise AFRIKA*. Volume 1 Number 1. Cape Town: School of Architecture, University of Cape Town. October. 26-42
- Prinsloo, I. editor. 2000. *Architecture 2000*. Cape Town: Picasso Headline (Pty) Ltd.
- Raeburn, M. editor. 1982. Architecture of the Western World. London: Orbis.
- Rautenbach, CH. editor. 1960. Ad

 Destinatum: Gedenkboek van die
 Universiteit van Pretoria, 1910-1960.
 Johannesburg: Voortrekkerpers.
- S.A. Architectural Record. 1961. 'Peri-urban Areas Health Board Headquarter Building, Pretoria. Architect C Strauss Brink.' May. 9-15
- S.A. Architectural Record. 1965. 'C.P.I. Bronze Medal.' June. 41
- S.A. Architectural Record. 1968. 'Truworths Factory, Observatory.' (sic) May. 13
- Strauss Brink C. Early 1960s. 'Huise moet weer binnehowe met fonteine kry.'
 (Houses should have courtyards with fountains again) Lecture to S.A. Art Society reported on by F.F.B., presumed in *Die Transvaler*.
- Sunday Argus. 'Swish new development taking shape.' Available at www. swishproperties.co.za/wp-content/uploads/article3.pdf accessed 2011 October 10.
- The Architectural Review. 1959. 'Offices, Pretoria (architect, C. Strauss Brink), for the headquarters of the Peri-Urban Areas Health Board.' Commonwealth I: Special Issue. Volume 426 Number 752. October.185-186.
- The Pretoria News. 1956. 'Peri-Urban HQ in city will cost £158,000.' 27 August.
- Tindale, D. 2011. Interview with author. Johannesburg. 18 May.

- Townsend, S. 2010. 'Werdmuller: Can/should it be saved?' *Architecture South Africa* May/June. 4-5.
- Todeschini, F. 2011. E-mail correspondence with author. 8 & 10 August.
- Transvaal Provincial Administration. 1971. *Transvaal 1961-1971*. Johannesburg: Voortrekkerpers. 58-59.
- Uytenbogaardt, RS.1956. 'A Marine Biological Centre.' Unpublished B Architecture thesis partially illustrated in *Architect and Builder* February 1957:34-36; and *S.A. Architectural Record* March 1957:26-27
- Uytenbogaardt R.S. 1965-66. *Bonwit Working Drawings rolls 1 to 5*. BC 1264 Roelof Uytenbogaardt Papers. Harry

- Oppenheimer Library, University of Cape Town.
- Wale, L. 1976. 'Werdmuller Centre, Claremont, Cape.' *Architect and Builder*. May. 2-3.
- Wolff, I. 2009. 'Werdmuller centre an artifact of an ephemeral context.' *SA Journal of Art History*. Volume 24, Number 1. 75–86. Available at http://www.journals.co.za/ej/ejour_sajah.html 2009 Accessed on 2010 October 10.
- Wolff, I. 2011. 'Werdmuller Centre Demolition notice.' E-mail to author on 20 October.

Basil Brink obtained a B Arch degree at the University of Cape Town in 1976 and worked in Transnet's architectural office in Johannesburg from 1976 to 1992. From 1977 to 1979 he took study leave to complete a MSc in Urban and Regional Planning at the University of Delft. Basil worked for Propnet, Transnet's property unit, from 1992 to 2003. He joined the Department of Town and Regional Planning at the University of Johannesburg (UJ) in 2005. He resigned in 2008 to complete a DPhil in Engineering Management, which was conferred in 2011 by UJ. Basil has written articles and presented papers on town, regional and sustainable development planning. Basil is currently a post-doctoral researcher at Unisa.