



IDEALS AND

Innovation in architectural form is, unfortunately, rare these days as many designers unconsciously resort to the use of fashionable clichés or international precedent. It is refreshing, therefore, to come across uniqueness in architectural form, in an understated building² for a medical practice in Die Wilgers, Pretoria, completed in 2015.

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Here, the architect Marguerite Pienaar, of HolmJordaan Architects and Urban Designers, has made a considered contribution to the way that architects can consciously operate.

Following from an *exposé* of the regionally influenced architecture of Karlien Thomashoff in the 2015 July/August issue of *Architecture South Africa*, this article will also sketch the biographical influences of Pienaar, which not only increases the limited record of the practice of South African architects, but also elucidates design approaches. This article will locate the design of Die Wilgers Medical Centre as a reconciliation of the architect's ideals and the complexities of everyday design.

INTRODUCTION

A number of authors, in a recent *South African Journal of Art History*³ on the work of Le Corbusier, allude to a dialectic in his work that supports similar critiques raised by Colin St John Wilson in his seminal book, *The Other Tradition of Modern Architecture*. Here, Tim Benton⁴ (St John Wilson, 2007:154) refers to the design of Le Corbusier's 1929 house for Hélène de Mandrot in Le Pradet, France, as vacillating between his dominant architectural principles⁵ and the exigencies of the program and site. But this critique is contestable. Even though the house was constructed of random rubble-stone walling and an exposed timber-roof structure, Le



CONTINGENCIES¹

DIE WILGERS MEDICAL CENTRE, PRETORIA

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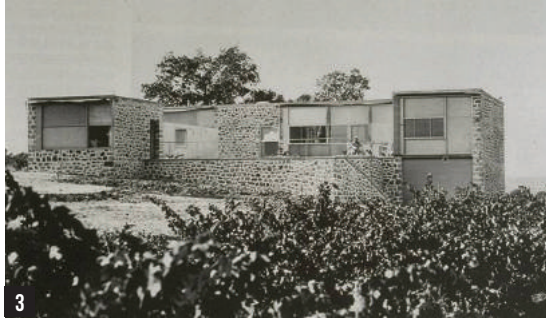
Corbusier himself notes (Frampton, 2001:133) that ‘the rusticity of the materials is in no way a hindrance to the expression of a clear plan and a modern aesthetic’. As Heynen (1999:11-14) has explained in *Architecture and Modernity*, this transitory view of the modern expresses the desire for innovation that does not oppose tradition to achieve progress, but reacts to it through endless change.

At the heart of this is the ‘conflict’ between architectural ‘inheritances’ and the exigencies of place, client requirements and everyday practice. In this way ideals are bounded by contingent conditions. An awareness of this approach can result in unique architectural solutions, exemplified in the design of Die Wilgers Medical Centre.

IDEALS

Marguerite Pienaar (1977 –) graduated from the University of the Free State’s (UFS’s) Department of Architecture in 2001. She received the Award for Best Final Year Student (*cum laude*) from the Free State Institute of Architects, as well as being placed second runner-up in the regional Corobrik Student Awards. The following year, she received a special nomination from the International RIBA Student Competition for her final-year project.

In 2013, she completed a postgraduate Master’s Degree *cum laude* at the University of Pretoria, focused on the domestic architecture of Norman Eaton (1902 – 1966) and was subsequently awarded the Neil Powell >



Neil Postgraduate Award for the best postgraduate studies through research. She has taught at the universities of the Witwatersrand and Pretoria, and at the Tshwane University of Technology. Pienaar is a regular external examiner at these and other South African universities.

After her final year of study, she taught part-time at UFS while working for Hennie Lambrecht and, on occasion, for 'Ora Joubert Architects. Subsequently, she joined the offices of ACG Architects in Cape Town where, in conjunction with Shirley Gunn (Human Rights Media Centre), she won an inter-office competition for the Athlone Struggle Memorial Competition. Pienaar also worked as a candidate architect for Comrie + Wilkinson Architects and Schabort Nothnagel Architects.

She has been a director at HolmJordaan Architects and Urban Designers since 2007. The practice is 'an exemplary architectural as well as environmental consultancy, which has received numerous awards for their architecture, restoration and energy studies – also in the fields of affordable housing, urban regeneration and environmental management – ranging through scales from that of the inner city to [the] distant rural locations.' (Fisher, 2012:32.) In 2013, Pienaar received an award from the Pretoria Institute of Architects (PIA) for the Novi Skin Centre in Nieuw Muckleneuk. Here, many of Pienaar's architectural ideals were honed. In 2015, with her husband Morné, she received a Commendation, also from the PIA, for the Refilwe Urban Upgrade project.

PIENAAR CITES THE URBAN-DESIGN INFLUENCE OF PROF PAUL KOTZE AS CRUCIAL TO HER DEVELOPMENT

Pienaar grew up on an isolated farm near Somerset East in the Eastern Cape, with her parents and five siblings. Her mother inculcated a love of reading in all her children. A phenomenological approach to architecture was instilled by the cliffs and caves of the rural context, where the children often carved make-believe 'cities' in the earth. In hindsight, Pienaar recognises that her father's simple artistic pursuits must have had some influence on her initial decision to study art or architecture at the then University of Port Elizabeth. But a meeting with Professor Jan Smit at UFS, who made the course seem so interesting, made her accept a position there.

Apart from the deeply seated phenomenological design approach at UFS, Pienaar cites the urban-design influence of Prof Paul Kotze⁶ as crucial to her architectural development. His introduction to students of the work of Pierre von Meiss, who was later invited to a student conference at UFS in 2002, awakened an interest in ideas of gravity in architecture⁷. As a result, many of her student design projects explored these themes – often focusing on hermetic, linear architectural forms that were grounded in place. Through Kotze's student visits to the Cape, she was also introduced to the transitory modernist work of Roelof Uytendogaardt and Norbert Rozendal in Cape Town. The latter's Niehaus gallery, in Claremont, would later influence the internal upper-floor layout of her award-winning Novi Skin building.

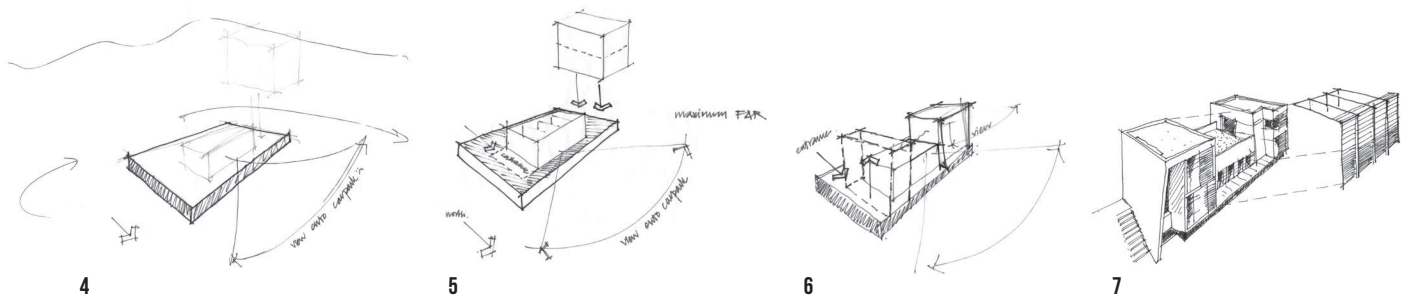
At the heart of Pienaar's design approach is a belief that architecture as sculpture alone does not have staying power and that humaneness, as espoused by Peter Buchanan in his article 'Place and Aliveness' in the *Big Rethink in Architecture*⁸, has much more value. This belief aligns closely with the regionally inspired, but canonically principled Modern Movement architect, Eileen Gray, who once retorted that 'formulas are nothing. People are everything' (www.anothermag.com/design-living/7916/inside-eileen-grays-modernist-haven-e1027 [accessed 2 May 2016]).

Pienaar is, however, unashamedly respectful of the Modern Movement form, her standpoint reinforced by Joubert (2012:31) who refers to Pienaar's Novi Skin building in Pretoria as being of the 'neo-modernist genre'. But Pienaar's approach to the Modern Movement is transitory and her form-making is deeply entrenched by her formative influences and moulded by the contingencies of place, program and practice.

CONTINGENCIES

In 2014, Pienaar was approached by a Pretoria-based doctor, Danéle Serfontein⁹ of MedAhead at @ Wilgers, to initially design an ambitious and specialised medical >

1 The north eastern aspect of Die Wilgers Medical Centre (Pienaar, 2015). 2 The 2012 Novi Skin project in Nieuw Muckleneuk, Pretoria, which received an Award of Merit from the Pretoria Institute of Architects. The tightly framed urban form was a precursor to the design approach for Die Wilgers Medical Centre. 3 Le Corbusier's Villa Mandrot at Pradet, France, 1929 where ideals are reconciled with context and brief.



facility to complement the nearby hospital. The client explains that ‘the team at MedAhead @ Wilgers has been working together in a 24-hour emergency practice for many years... [and that they] believe that the medical industry in South Africa is facing many challenges – amongst others a severe shortage [of] medical expertise. [They therefore] pride [them]selves [on] playing a special role in the private medical market’ (<http://medahead.co.za/> [accessed 9 May 2016]). Problems with approvals and costs resulted in the final programme, which caters for a range of medical practitioners and associated administrative and service facilities. Pienaar also had to ‘future-proof’ the design to take account of the possible expansion and flexibility in medical practices.

The client expressed a need for a light, open and ‘fresh’ building that ‘exudes a sense of wellness’. The building had to be simple and unpretentious, but bold enough to act as a landmark in the area. Dr Serfontein was enamoured with ideas of building with ‘local’ materials, references to nature and Pretoria’s built history. ‘Given the tight budget, she was set on good value for money.’ (Pienaar, M. 2016.)

The 636m² site is located in Die Wilgers, Pretoria, on the corner of Wattle Crescent and Beuke Place, directly behind an existing hospital parking area and bordered, to the south, by residential properties. An existing residence was demolished to make way for the new development. The client also owns the site to the south, where an existing house is used for practice administration. Pienaar had to consider the future expansion of the medical centre to encompass this site. However, municipal-zoning regulations, floor-area ratios (FARs) and a restrictive set of parking requirements resulted in an extremely limited building footprint.

RECONCILIATION

After a number of iterations that worked within the tight regulatory footprint, and limited by budget, Pienaar’s concept was formed. As in *Novi Skin*, and Pienaar’s student project in Welkom, well-defined urban edges root the building in place. A strong architectural, Von Meiss-inspired form acts as a small contrasting landmark in the area, while its formal articulation facilitates future internal expansion. Pienaar explains, ‘The concept proposal is simple: the building would be placed to edge as close as possible to the northern boundary of the site, facing Wattle Crescent. In this way, [it] is exposed to the northern hemisphere (climatically desirable), and

visibility along Simon Vermooten Drive and Lynnwood Drive is increased. In addition, [*this*] positioning on the site means that parking can be tucked away neatly behind the building envelope. Simplicity and flexibility will be key ideas driving design decisions, allowing for a robust building envelope that would be able to accommodate change over time with the minimum of impact. The width of the building will be [a] direct result of accommodating parking on the site, along the southern edge. Along with turning circles for cars parked at a 60° [angle], the remaining space makes up the width of the building footprint.’ (Pienaar, 2014:11.) The frontal location of the new building also allows for future expansion to the rear, through a possible courtyard typology.

Although Pienaar (2016) notes that she is ‘not sure about consciously evoking the past, as we are not in it’, her work is certainly cognisant of the continuum of the discipline, as well as demonstrating a synergy of her ideals and local design traditions. Pienaar’s predilection for singular powerful form, that seemingly acts against gravity, can be seen in the facebrick plinth that anchors the building to the ground, acting as a counter to the cantilevered white-painted brickwork box that sits above. To the rear of the site, as a result of its fall, this aspect proved more difficult to achieve. The security entrance to the eastern edge of the site is a figurative cut-out of the main building, providing further continuity of form.

The architecture of Die Wilgers establishes a new place in the nondescript neighbourhood, just as Alvar Aalto’s 1953 Muuratsalo Experimental House creates a strong temple-like presence in the Finnish forest. Further similarities are the towering white-painted brickwork walls and screen that contrast with the brownness of the nondescript hospital environment – echoing Aalto’s contrast with nature. Pienaar’s brick-walled ‘bookends’ frame a steel-framed filigree providing privacy, glimpses of the spaces beyond and the promise of extensions.

The rooftop terrace echoes Mediterranean architectural influences and, perhaps unconsciously, recalls the 1930s South African *zero-hour* experiments with flat-roofed buildings in the then Transvaal. The strong linear and hermetic forms of Pienaar’s student projects, her continued predilection for flat roofs and the expense of concrete, has resulted in low-pitched steel sheeted roofs bounded by parapet walls. Although >

4-7 Pienaar’s sketches of Die Wilgers showing the development of the architectural form



Pienaar has exploited the double volume at the entrance and foyer, the limitations of the flat roof restrict greater volumetric exploration in the remainder of the scheme.

The formal resolution not only recalls the aesthetic, but also the functional role of Alvaro Siza's forest-bound swimming pool in Porto which, in turn, bears many similarities to Aalto's experimental house. Siza's walls frame a swimming pool courtyard, further articulated by the vertical timber louvres that create privacy for the changing rooms.

Die Wilgers' elevated consulting rooms and steel screen provide privacy for patients, while facilitating passive design strategies on the northern façade. Here, Pienaar relies on thresholds to mimic the formal principles of the

Pretoria stoep that her client expressed appreciation for when visiting her Novi Skin building. The tight building footprint has limited the location and depth of the thresholds, which exist as the cliff- and cave-like entrance foyer, balconies on the north and the roof-top terrace. Unfortunately, the restrictions of building width have mitigated against a further threshold between passage and examination room, which would improve privacy for the

patient. The internal layout of the consultation room has, however, been carefully organised to provide a number of thresholds defined by the continuous form of the counter and suspended ceiling unit.

The splayed entrance wall and steps to the north-east create drama and a formal plasticity, while allowing the form of the building to gently 'turn' the corner. An architectural promenade draws pedestrians from the street edge and car users from the parking area into the external roof-lit foyer, linking visitors back to the context and a view to Pienaarspoort.

The formality of the architecture is subtly balanced with phenomenological articulations. The client's request for a 'light, open and fresh' building has resulted in the strategic use of natural light and the concomitant location of carefully crafted openings, to respond to issues of privacy

and communality. The raised nature of the external foyer provides a discreet entry for the visitor, further enhanced by sliding screens in the waiting area. Windows at floor level in the linking passage hide patients' entry into the consulting room, where a fully glazed and recessed façade is screened by perforated steel panels. Wall surfaces are exploited to provide places to rest and guide movement, while (Antonio) Scarpa- and Aalto-like attention to detail and the restrained use of colour provide a calm and restful interior.

The two-storied centre houses reception, waiting area, consulting rooms and service spaces on the ground floor. Spaces are appropriately scaled for the inhabitants, albeit the cliff-like entry and waiting area are possibly too narrow and compromised by the low-level windows specifically for patient privacy. It is also a pity that the main passage ends in service doors; a compromise that was not present in previous design iterations.

On the first-floor western wing, further services, more flexible consulting rooms and a second waiting area have been provided. This area links to a roof-top terrace that can be used for outdoor exercises or social events. This space partially resolves Pienaar's intentions to 'future-proof' the building, by allowing for the maximum FAR. The space also provides release to the tight internal arrangement, as well as phenomenological connections to light, sun and view. A cleverly planned door-within-a-door allows varying possibilities of linking with the terrace, should internal planning change.

The small building footprint has minimised the need for complex structural solutions. Load-bearing walls carry suspended, off-shutter concrete floor slabs and a timber roof structure at first-floor level. Material choices are guided by a conscious environmental approach, as well as Pienaar's formal ideals and the influences of regional architecture. To reduce costs and deal with the clients' dislike of the extensive use of facebrick, walls are bagged – in various ways externally – and painted to articulate the overall building form. Pienaar's study on Norman Eaton, and her transitory approach to modernity, must have influenced the aesthetic – which renders the planar architecture partially organic. Continuity between inside and outside space has been achieved through the use of various sized black-slate floor tiles, recalling Pretoria architectural traditions of the 1940s and 50s.

There is much innovation in detailing, such as connections between stereotomic and tectonic elements, and much care has been taken with the design of the northern sliding-steel screens. Here, perforations have been organised according to Fibonacci principles, while the centrally located screens consist of simple clamped-steel mesh. Attention has also been paid to the design of window and door openings – from the horizontally slotted and splayed reveals of service windows, to window-frame configurations and internal partitions with coloured inserts on the first floor. The black aluminium window frames and black-painted column downpipe and beam provide a strong contrast to the white-painted walls. Simple plywood panels, revealing a relief of Pretoria's urban >

THE FORMALITY OF THE ARCHITECTURE IS SUBTLY BALANCED WITH PHENOMENOLOGICAL ARTICULATIONS

8 Alvar Aalto's 1953 Muuratsalo Experimental House, Finland (<http://www.archdaily.com/214209/ad-classics-muuratsalo-experimental-house-alvar-aalto> [accessed 8 May 2016]).



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PROJECT: PRETORIA MEDICAL CENTRE

layout, have been used to create a modesty screen for the reception desk and balustrade to the internal staircase. A decision to splay a low wall at the entrance door provided an opportunity to use red mosaic tiles to express a tongue-in-cheek medical reference. Exposed copper pipes in service areas and innovative light fixtures complete the honest expression of materials and technologies.

Environmental considerations draw directly from the local context and historical architectural precedent. The 'attenuated plan form ... is environmentally advantageous' (Pienaar, M. 2014:11) as the northerly orientation limits east-west exposure. Along with limited

openings on these edges and considerable thermal mass through brick walls, direct earth connection and concrete floors assure adequate passive design. As a result, minimal mechanical heating or cooling is required, with necessary services hidden behind the steel screens. The limited building width also allows for natural lighting and ventilation. The screen to the north will eventually be covered with creepers, which will assist with summer sun control. Bricks were sourced from local quarries, which reduced transport costs, and although aluminium has a high-embodied energy cost, it was selected due to its low-maintenance and recyclable possibilities. Recently, the client installed solar panels on the roof for water heating; these have not compromised building form or aesthetics.

PROFESSIONAL TEAM

Client: Dr Danélle Serfontein
Architect: HolmJordaan Architects & Urban Designers
Project Architect: Marguerite Pienaar
Architectural Team: Morné Pienaar, Pieter Wannenburg, Kobus Vos, Walter Raubenheimer, Leoné Pieters, Hardus de Bruyn
Contractor: Archecon
QS: Johann Taljaard QS
Electrical Engineer: Hans Verhage
Structural/Civil: PDesign Engineers

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CONCLUSION

Die Wilgers Medical Centre is a small building that does big things. The strong formal statement, that extends Pienaar's experimentations with hermetic linear form, is softened by material choices, thresholds, the use of light and attention to detail. It is a 'welcoming' building, providing patients with a secure, private and restful experience.

The design is a reconciliation of Pienaar's architectural ideals and the contingencies of place, programme and practice, proving that past influences that have formed architectural ideals can be successfully reconciled with the exigencies of daily practice. The solution is both powerful and phenomenological, and demonstrates the dictum that *practice does make perfect*. ■

¹After Tim Benton in St John Wilson, C. 2006. *The Other Tradition of Modern Architecture*. p154.

²As Pienaar refers to it.

³Steyn, G.S. (Ed). 2015. *Celebration Le Corbusier*. South African Journal of Art History. Vol 30. Issue 4.

⁴Tim Benton is professor emeritus of Art History at the Open University. In 2008, he was visiting professor in the Department of Art History and Archaeology, Columbia University. In 2009, he was the Robert Sterling Clark visiting professor of Art History at Williams College, Massachusetts. From 2010, he was visiting professor at the Ecole Polytechnique Fédérale de Lausanne (<http://www.open.ac.uk/people/tjb3> [accessed 2 May 2016]).

⁵This is essentially le Corbusier's five-point plan – pilotis, roof garden, free plan, ribbon window and the free façade.

⁶Professor Paul Kotze taught at the University of the Free State and is currently based at the University of the Witwatersrand. He studied Urban Design under Roelof Uytendogaardt and has written extensively on South African architecture.

⁷Von Meiss' article 'Gravity in Architecture' (2000) explains that 'beyond taste or fashion, there exists a lasting and common consensus for a perception of beauty linked to weight or weightlessness'. [His] essay attempts to develop an understanding of different approaches to the issue of weight and weightlessness in architecture and civil engineering. In complex urban and programmatic settings... [t]he question of gravity has to be integrated with many other issues, as exemplified by Albin and Helg's La Rinascente department store in Rome" (<http://0-journals.cambridge.org.innopac.up.ac.za/action/displayIssue?jid=ARQ&volumelId=4&seriesId=0&issueId=03#> [accessed 2 May 2016]).

⁸Published in *Architectural Review*, 24 July 2012.

⁹Serfontein had visited, and was impressed with, Pienaar's Novi Skin facility.

9 North and road elevation showing screens, thresholds as balcony and roof top terrace.

10 Reception foyer with external sliding screen retracted.