Heterotrophic syntheses: mediation in the domestic architecture of Gabriël Fagan

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Gabriël (Gawie) Fagan (1925) is a leading South African architect. His architecture is regionally rooted and can be described as a "new" architectural language that mediates between a love of the Cape vernacular, functional requirements and responses to an education in Modernism. It is not architecture at rest. It does not rely on a homotopic formality, rigid reinterpretation or direct reliance on traditional or Modernist typologies. It is suffused with tensions and contradictions and a heterotrophic hybridity which makes the architecture a unique synthesis, a quality rarely encountered in South African architecture. Fagan's design process is rooted in the polarities of his upbringing and education. He was raised in a respected family where frugality and the appreciation of quality were equally important. As a child his pursuits varied from pragmatic curiosity to creative sensitivity. These contradictions continued during his tertiary education, completing four years of an engineering degree before studying architecture. The orthodox international Modernism of the Witwatersrand architectural school was shifting to a regional expression at the newly formed Pretoria School and the influence of lecturers like the pragmatic Basil South (1915-1952) and Cole-Bowen (1904-1976) and contextually sensitive architects like Helmut Stauch (1910-1970) and Norman Eaton (1902-1966) paved the way for Fagan's own architectural language. In this paper Fagan's formal architectural mediations through the medium of his domestic oeuvre are investigated.

Key words: modernism, vernacular, mediate, synthesis, architectural form, heterotrophic

Heterotropiese sintesis: mediasie in die huisargitektuur van Gabriël Fagan

Gabriël (Gawie) Fagan (1925) is 'n vernaamde Suid Afrikaanse argitek. Sy argitektuur is gebieds gebonde and kan beskryf word as 'n 'nuwe' argitektoniese taal was tussen 'n liefde van Kaapse inheemse argitektuur, funksionele vereistes en 'n opvoeding in Modernisme bemiddel. Dit is nie 'n argitektuur wat rus nie. Dit maak nie staat op 'n homotopiese formalitiet, onbuigsame herinterpretasie of 'n direkte vertroue op tradisionele of Modernistiese tipologieë. Dit is oordek met spanning en teenstrydighede en 'n heterotropise hibriditeit wat die argitektuur 'n unike sintese maak, 'n kwalitieit wat seldsaam in Suid Afrikaanse argitektuur teegekom word. Fagan se ontwerp proses se oorsprong kan gevind word in die polaritiet van sy opvoeding. Hy is in 'n welgestelde familie gebore waar spaarsaamheid en 'n waardering van kwalitiet gelykheid getrek het. As 'n kind het sy het sy belange tussen pragmtiese nuuskurigheid en kreatiwe sensitiwiteit gewissel. Hierdie teenstrydighede het gedurende sy tersiere opvoeding aangehou waar hy vier jaar van 'n ingeneurs graad klaargemaak het voor hy argitektuur begin studier. Die ortodokse internationale Modernisme van die Witwatersrand se argitek skool het verander na 'n gebieds gebonde uitdrukking by die nuwe Pretoria skool end die invloed van lektore soos die pragmatiese Basil South (1915-1952) en Cole-Bowen (1904-1976) en kontektuele sensitiewe argitekte soos Helmut Strauch (1910-1970) en Norman Eaton (1902-1966) het die weg gebaan vir Fagan se eie argitektoniese taal. Die digotomië in Fagan se huislike argitektuur skep 'n vars en onverwagse uitkoms, 'n bemiddelde resultaat in 'n ou idiom en 'n nuwe taal vir 'n nuwe tyd.

Sleutelwoorde: Modernisme, Landstaal, Bemiddel, Sintese, Argitektoniese vorm, Heterotrofies

abriël Fagan mediates architectural dichotomies in his domestic oeuvre, straddling universality and place, being both introverted and extroverted, relating both classically and romantically to the landscape and, in its making ranging from simple technology to sophisticated technique.

It can be described as a heterotrophic¹ architecture as it borrows from sources that are quite often contradictory in nature. These syntheses are not the result of a particular theoretical approach but are the consequence of a search for appropriate solutions to particular problems (Fagan 2010). They rely on an indirect and subconscious reinterpretation of traditional and universal architectural typologies.

The result of Fagan's mediation is not a static architecture. It is also not a quiet resolution of contradictory influences. It is an architecture that is in perpetual tension and is the result of a lifetime of mediating influences and experiences. These were initiated in childhood where aspects of nature and nurture were reconciled. Fagan inherited the artistic talents of his mother, Jessie (Queenie) Theron (1896-1977) and the literary and inventive skills of his father, Justice

Henry Allan Fagan (1889-1963). Fagan demonstrated academic prowess and early technological creativity contextualized through outdoor activities like sailing. During his university tenure (2nd and 3rd initiation,(1943-1946), Fagan mediated between engineering and architectural studies, while playing music, repairing motorbikes and learning to fly. For 12 years thereafter Fagan crystallized his design philosophy with Volkskas Bank where he mediated corporate expression and contextual needs. The expressive phase of Fagan's career mediates between restoration and new work with restoration responses spanning the extremes of conservativism and radicalism. New work mediates a range of architectural concerns that will be discussed in the following sections.

Formal architectural mediations

New requirements in a place-specific form, uniformity and personal expression

Fagan's domestic architecture mediates between conflicting design influences. The architectural result does not sit at the extremes of its informants; it engages both in the process, creating a divergent and challenging rather than resistant architecture.

Such architecture speaks of difference, and in a way, pre-empted Venturi's Post-Modern retort to "Less in More" with "Less is a bore" with the call to employ strategies of complexity and contradiction. It is an inclusive architecture, as it builds on a history of regional and international approaches as it fosters a new tradition.

The architecture mediates a range of concerns to produce recognisable form that is both new and timeless. The tensions present contradictions in the architectural form, organization and detailing of Fagan's domestic architecture. No sooner are the rules2 set they are broken and it is perhaps the recognition of these tensions that creates uniqueness in his architecture. The tensions are diverse in their generation but are the result of a lifetime of experiences and education.

Science and experience

Imitation and invention, the new and the familiar

"Architecture has another meaning and other ends than showing construction and responding to needs (and by needs I mean comfort, practicality and comfortable arrangement). Architecture is the art above all others which achieves a state of platonic grandeur, mathematical order, speculation, the perception of harmony which lies in emotional relationships. This is the aim of architecture" (Fagan 1969: 3).

Fagan's technologically inventive childhood and sensitivity to context provided a sound platform for the reconciliation of the polar informants of architectural design, namely art and science, the latter concern over emphasised during the Modern Movement.

Fagan mediates these concerns through the use of familiarity and experience. To foster and build on tradition Fagan creates a synthesis between the white box Modernist form and traditional "white walled beauty of the Cape" architectures through the use of the chimney and the sheltering roof. Fagan's typologies respect tradition but are inventions rather than imitations. The new typologies recognise both their traditional beginnings and the necessities of modern life. Spatial experience builds on both the Cape sequence of arrival and the Corbusian architectural promenade. Fagan's initial more formal use in his parent's house in Keurbos is later tamed to a more place-bound and experiential route in 'Die Es' (1965) and 'Raynham' (1967). The designs are grounded

"in experiential qualities than a priori formal values" (Constant, 2007)

and recall Eileen Gray's³ development of the modern idiom in her Tempa à Pailla in the Mediterranean port of Menton in 1934.



Figure 1
Top left: House Auldearn, Elgin, 1992. Top middle: House Swanepoel, Hermanus, 1991. Top right:
House Patterson, Somerset West, 1966. Bottom left: Levin, Saldanha Bay, 1969. Bottom middle: House
Blommaert, Stellenbosch, 1985. Bottom right: House Beyers, Betty's Bay, 1998.

Form and context

...although a watch or car can be universally meaningful, yet District Six is not Bishopscourt, Cape Town is not Johannesburg, is not Pretoria, because the evolution of a city depends not so much on technology as a continuous human response to place, to the past, the present and a vision of the future (Fagan 1972: 1).

Fagan has remarked that his search for form is based on aspects of cultural and physical context, the former through an association with the principles of traditional architecture through Barrie Biermann's influence and years of restoration work, the latter through an understanding of place and all its physical influences. But this search for form is guided by a Functionalist and Rationalist training.

"The sense of history, of genius loci, informs and suffuses the design with a poetic sensibility that is totally absent in the Cartesian abstractions of the International Style" (St John Wilson 2007: 114).

Fagan syntheses these polar concerns through a series of formal relationships that are explained in the sections that follow.

Classic modernism/organicism

Geometric-organic

The 1932 MOMA exhibition⁴ endorsed the idea of a regional or local Modernism and predicted a shift from geometric to organic architecture (Pelkonen 2009: 170). Fagan's modernist education was shaped by the orthodox slant of Helmut Stauch (1910-1970) as well as the built influences of Norman Eaton (1902-1966) who was shifting to an African-inspired architecture. The Brazil Builds exhibition⁵ and the work of Oscar Niemeyer provided strong formal influences on Fagan but as he has noted:

Barrie Biermann and I were once pondering the contorted surface of a new building. After a long silence, he said in his laconic way: 'be thankful that we were taught in a more disciplined time'. And I am truly thankful, as the cubist discipline taught the basic stuff of architecture – the Villa Savoye has to precede Ronchamp (Fagan 1991: 10).

Another of the Pretoria graduates, Karl Jooste (1925-1971), a lifelong friend of Fagan, demonstrated a much more organic and dispersed formal approach in his work. When Fagan was asked why his work did not follow the same Modernist mediation he replied that the context of the Transvaal landscape dictated a more amorphous form. Fagan's organic mediations are inspired by Le Corbusier's free plan and the plastic nature of Cape traditional architecture, but these influences are tamed through Fagan's reliance on singular form.

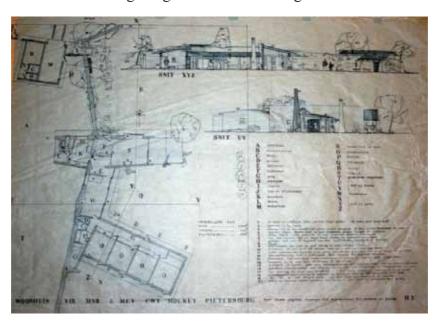


Figure 2
House Hockey, Pietersburg, Karl Jooste, Undated and uncatalogued, National Cultural History Museum,
Pretoria.

Frampton has noted Fagan's architecture is

in its spatial and structural aspects as organic as it is tectonic.

Organic responses within geometric organisations are guided by contextual influences, functional requirements and respect for tradition. Forms mould to their physical contexts like the holiday residences at Cape St. Francis with its dune-like roof shape, while in the examples of 'Raynham' (1967), 'Hermanus' (1990) and 'Die Es' (1965) external walls morph in shape, height and ground connection. Special spaces or elements are often given significance through a Corbusian organic manipulation; this most clearly seen in the chimney room in 'Die Es' (1965) and the subtle curves in bathroom walls in 'Keurbos' (1951). Early organic elements are more inspired by Le Corbusier and are more internal but, there is a later shift to a total organic form.

The latter part of Fagan's career seems to have limited formal organic expression, relying on spatial flow to counter a strict linear geometry.

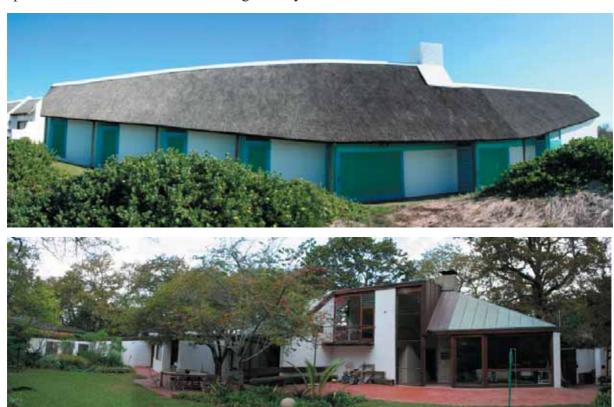


Figure 3
Top: House Swanepoel, Cape St. Francis, 1980. Bottom: House Raynham, Newlands, 1967.

Cape and Mediterranean

Le Corbusier's 'Chilean House' for M. Errazuris marked a departure in his domestic oeuvre through the use of traditional Mediterranean methods of construction. This was preceded by 'Villa Hèléne de Mandrot' in 1928 where Le Corbusier used the Mediterranean stoa and cubic forms as well as the bare terrace (Tzonis 2001: 116) to produce one of his first regionalist pieces. Fagan has drawn on these influences to attain, as Frampton has remarked,

an unexpected synthesis between the white plastered tradition of the Cape and the plasticity of the Mediterranean vernacular.

Fagan's architecture finds synergy in the work of the Portuguese Mediterranean architects Alvaro Siza (1933) in the use of the contextually manipulated white wall and Pancho Guedes (1925) in the use of the flattened barrel vault and exaggerated chimney. The barrel vaults recall those on the Cape farm Meerlust (Fagan 1983), Le Corbusier's 'Maisons Jaoul' (1954-56) and Guedes 'Smiling Lion' (completed in 1958) in Maputo which Fagan visited in 1955. Fagan (1977:5) has noted that

the Dutch learnt from the Portuguese in the typical Mediterranean use of the rubble or soft-brick wall, protected by lime plaster.

and that the properties of thermal mass offered by this type of construction makes it suitable for the Cape though the limitations of construction create awkward tensions with Modernist ideals of the free plan. The most synergous relationship established was that of 'Die Es' (1965) where the limited wall linkages of the syncopated roof provide for greater freedom of planning and external connection. This house also demonstrates a tectonic and formal similarity to Semper's

description of the Caribbean hut through its rational and framed open plan with dominant chimney.

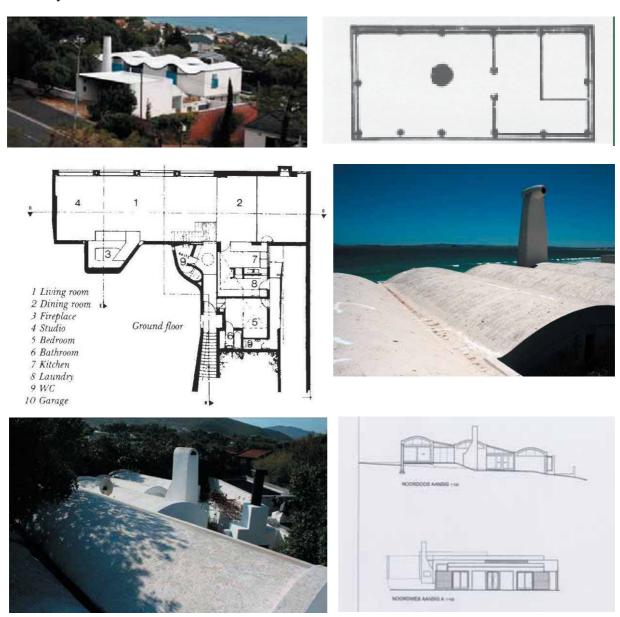


Figure 4

Top left: House Die Es, Camps Bay, 1965. Top right: Semper's plan of the Caribbean hut (Semper & Mallgrave 1986: 2). Middle left: Ground floor plan of Die Es. Middle right: House Paradys, Langebaan, 2003. Bottom left: House Luckhoff, Onrust River, 1981. Bottom right: House Van Zyl, Swellendam, 2008 (unbuilt) (Fagan archive).

Classic and romantic landscape relationship

"I generally feel that our powerful landscape still calls for a strong, easily legible statement in our architecture" (Fagan 1985: 9).

The orthodox Modernist universal form is most often recognizable as a simple box, dominating its landscape. In a sense it is analogous with the traditional Cape typology, a result of the inherited Dutch Classical tradition. But a tension exists in Fagan's houses like 'Die Es' (1965), 'Bertie-Roberts', 'Raynham' (1967), 'Swanepoel' in Hermanus (1990) and 'Fagan Junior' (2008) in MacGregor. They are connected to the earth by low walls, a sunken garage or subtle transitions between wall and ground. House forms mediate between independence and connection. Alvar

Aalto's (1898-1976) more horizontal mediations have been commented on by Joedicke and supported by Fagan (2010):

"He sees the works of nature and man as complimentary, with buildings, having their own independent place in this relationship" (Joedicke 1969: 164).

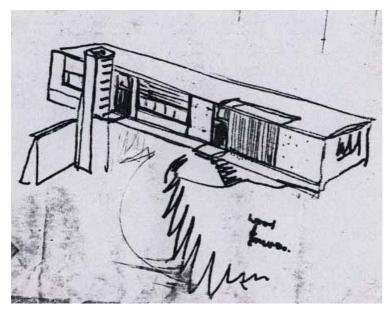








Figure 5
Top left: Initial sketch of Bertie Roberts, Camps Bay, 1966 (Fagan archive). Top right: Die Es, Camps Bay, 1965. Bottom left: House JJ Fagan, MacGregor, 2008. Bottom right: House 'Raynham' (1967), Newlands, 1967.

Static — moving

Probably the most beautiful and certainly the most unifying characteristic of our Cape Dutch architecture is the plastic quality of the softly plastered lime washed walls. The tractable plaster encouraged a boldness and exuberance attainable in stone and often spread over the roofs like these vaults at Meerlust (Fagan, 1983: 6).

This attribute is extended by Fagan to encompass the entire wall element which step and slope to respond to functional or contextual requirements. Roofs respond in a similar manner creating an entirely moulded form. A tension is created between a 'moving' form and 'static' grounding elements like the chimney and subterranean garage or bounding wall. Although Fagan's architecture moves away from the static nature of the modernist box it still retains a dominance of overall form.

A further plasticity is achieved in the shifting spaces against the counterpoint of often fixed service elements. Buchanan (1995) describes the living room of 'Die Es' (1965):

"In a single evening the room might change from being a sunny balcony of a solitary reader and then of a chatty gathering, later to become the auditorium for a performance on the stage-like dining area, and lastly a soft-lit backdrop to the family gathered around the fire".

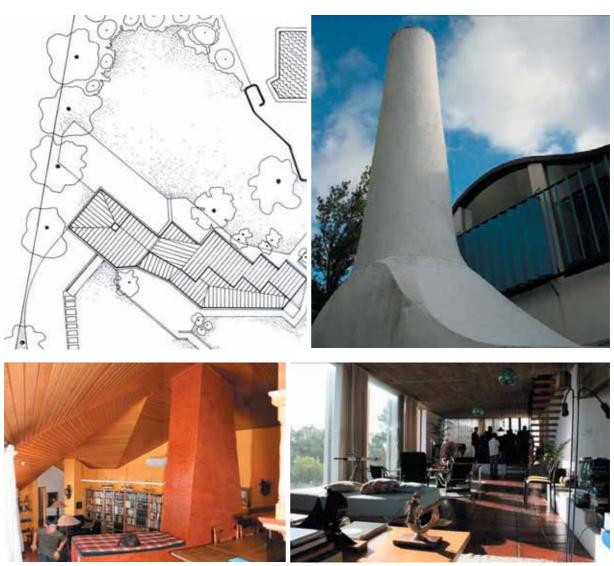


Figure 6

Top left: Plan of house Raynham, Newlands, 1967. Top right: Chimney, Die Es, Camps Bay, 1965. Bottom left: chimney, house Neethling, Durbanville, 1985. Bottom right: living room, Die Es, Camps Bay 1965.

Space and place

Interior and Exterior, identity and territory, the womb and the world

"We think in terms of 'being inside' or being 'outside' – in fact all our experiences lies at some point in a range running between these two extremes, each of which contains a potential state of panic: claustrophobia and agoraphobia...and this traumatic change experienced in early childhood between two polar positions or modes of experience through which we all pass in infancy" (St John Wilson 2007: 104,105).

The epitome of universal Modern architecture is the Miesian glass box where the line between interior and exterior space is visually blurred. A direct, monotonous and often climatically unsuitable relationship is established between space and place with little mediation between inner and outer worlds. The Cape tradition in contrast hid the inner world with direct transition to a central room.

Fagan has noted that thermal mass is essential for comfortable living in the Cape and that the glass box is not suitable for our setting. To mediate the concerns of a comfortable indoor environment, external connection and thresholds, Fagan uses a series of spatial, experiential and formal approaches which are described in the nest five sections.

Approach/entry

The arrival and approach at most Cape vernacular buildings is direct but nonetheless experiential. Fagan describes the approach at Groot Constantia as one of unfolding and later expresses that anything he would do after this would be Bathos, but also notes that the lesson is not lost and that a similar unfolding principle is used in his parents' house in Bishopscourt (Fagan, 1985: 5). An atrium mediates between inner and outer worlds while in 'Die Es' (1965) he uses principles of axial unfolding, hiding and revealing. These are notions are aligned more with Corbusian ideas of movement through space but are extended to encompass the full spectrum of experience in a similar way to Eileen Gray in her own house, near the port of Menton, on the Mediterranean coast of France.





Figure 7
Top left: Living room ramp, house Keurbos, 1951. Top right: Entrance stairs, house Die Es, Camps Bay, 1965. Bottom left: House Swanepoel, Hermanus, 1991. Bottom right: House Auldearn, Elgin, 1992.

Entry: vehicular — pedestrian

The conflicting requirements of vehicular and pedestrian entry are resolved in most of Fagan's houses by one access point to avoid

a confusion of entrances that exist in many suburban houses. Why have split paths to your front door? (Fagan: 2009).

But the approach to a dual entrance varies. In some instances the garage is suppressed in 'Raynham' (1967) and 'MacGregor' (2008), while in 'Paradys' (2004), 'Hermanus' (1990), 'Keurbos' (1951) and 'Blommaert' (1985) the front door and garage join or the house is entered from below as 'Bertie Roberts' (1966) and 'Auldearn' (1992). In most cases though, the garage is made as part of the house to subscribe to the formal typologies of the Modernist box and the Cape vernacular. A function, which in the old tradition was seen as separate and perhaps in the Modernist tradition as subservient (but connected), is now given some prominence and internal connection.









Figure 8

Top left: House J.J. Fagan, MacGregor, 2008. Top right: House Fagan, Langebaan, 2003. Bottom left: House Swanepoel, Hermanus, 1990. Bottom right: Keurbos, Newlands, 1951.

Front and back

Spatial and aesthetic duality

...glass doors on the garden side allow the street face to remain intact (Fagan 1976:3).

Fagan's houses exhibit a tension between back and front through the disposition of openings, more closely related with function than form, and quite often dictated by the location of service elements at the entry side with living spaces to the north or private garden edge. This strategy provides privacy from the world and contact with external space. This strategy mediates between the introverted nature of the traditional model and the monotony of the universal example, while still maintaining a coherent entry façade with entrance more peripherally than centrally located. It is perhaps an extension of Renaissance principles like Palladio's 'Villa Foscari' (1560) and later Le Corbusier's "interpretation" in 'Villa Garches' (1927). It also establishes a Mediterranean connection in the stoa type layout.









Figure 9
Left: East edge, house Die Es, Camps Bay, 1965. Right: West edge, house Die Es, Camps Bay, 1965.
Bottom left: East edge, House Maree Brink, Langebaan, 2003. Bottom right: West edge, House Maree Brink, Langebaan, 2003.

Thresholds and boundaries

Fagan's houses respect both the vernacular and orthodox Modernist notions of limited spatial layering between inside and outside. When Fagan was questioned about why his houses do not have covered terraces externally he remarked that that was not a Cape tradition.

When the doors in my house in Camps Bay ('Die Es') slide away, the house becomes the 'stoep' (Afrikaans for outside terrace) (Fagan: 2009).

Fagan achieves threshold connections by providing terraces or courts within the overall form. "House Swanepoel" (1990) in Hermanus has two conditions (an internal court and enclosed terrace). A similar approach can be seen in the external shower spaces in 'Keurbos' (1951) and 'Neethling' (1985) and 'Swanepoel' in Hermanus (1990). The 'Keurbos' (1951) atrium is the largest of the thresholds extending through the house and recalls Le Corbusier's 'Errazuriz House' in Chile (1930).

Introverted extroverted

The Modernist notion of space blurring the relationship between inside and outside is best seen in houses by Mies van der Rohe (1886-1969) and Philip Johnson (1906-2005). The Cape vernacular tradition is spatially, an introverted architecture with small windows tempering the Mediterranean climate. In Fagan's houses the dominance of wall architecture is respected, but

tempered by the contextual requirements of view in 'Die Es' (1965) and 'MacGregor (2008), solar penetration in 'Swanepoel' in Hermanus (1990) and external access in 'Raynham' (1967), 'Cape St. Francis' (1980) and 'Blommaert' (1985). Often a corner window or door is employed to mediate the spatial dichotomies, thus maintaining a clear dominance of wall in each of the room edges. Fagan mediates the sheltering nature of the vernacular tradition and the necessities of modern life and external contact.





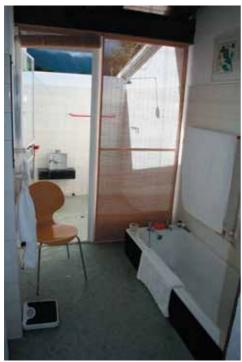




Figure 10

Top left: Living room, house Die Es, Camps Bay. Top right: 1965 House Swanepoel, Hermanus 1990. Bottom left: Main bathroom and court before a 2009 modernization, house Keurbos, Newlands, 1951.

Bottom right: House Neethling, Durbanville, 1985.

Form and function

The art of architecture - the art of living - the poetic and the practical

The qualitative aspect of man's habitat is not just defined as the function of a watch or a car – therefore it is a dangerous illusion to believe that our habitat should be moulded in the image of a predetermined scientific order. Unfortunately our age is split between human content and human objectivity – art and technics (Fagan 1972: 1).

The Post-Modern cry for the return to architecture of meaning resulted, in part, from the failure of Modernism to address the needs it set out to. Architects like Venturi (1925) who called for architecture of complexity and contradiction saw that man had become disassociated from his architecture.











Figure 11

Top left: House Swanepoel, Cape St. Francis, 1981 (Fagan archive). Top right: House Swanepoel, Hermanus, 1991. Bottom left: House Raynham, Newlands, 1967. Bottom middle: House Beyers, Betty's Bay, 1998. Bottom right: House Blommaert, Stellenbosch, 1985.

Modernity has often been deribed as a condition of "homelessness"...Modernity frees people from the limitations imposed on them by their family or clan or by their village community, offering them unheard of options and often material improvements as well; there is, however, a price to pay. The renunciation of the traditional frame of references for their lives means of loss of certainties and of meaning. For many people it is far from easy to learn to live with this (Heynen 1999: 14).

Fagan mediates between the concerns of a functionalist architecture and the loss of meaning, through an association with the principles of tradition appropriate for the current condition.

Fagan seeks to retain the formal principles of the vernacular tradition but to mould it to suit modern planning and spatial requirements. Similarly, he suppresses the flexibility of the Modernist plan with traditional manipulations. Spatial continuity is assured internally, but Universalist monotony is downplayed by internal spatial manipulation.

The plan (of Die Es) is as simple as that of a Cape Dutch house and the complexity lies rather in the smaller spaces created within this framework (Fagan 1985:12).

There is a clear shift in mediation from houses like 'Keurbos' (1951), 'Bertie Roberts' (1967) and 'Levin' (1969) where the rectilinear form is held, to houses like 'Raynham' (1967) and 'Neethling' (1985) where the plan dictates the form and creates a moulded and uniform entity. Fagan in 'Raynham' (1967) straddles the line between respect for traditional form and functional and contextual necessity, albeit in perhaps too formalistic a manner.



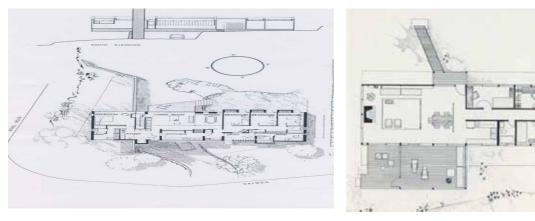
Figure 12

Top left: House Keurbos, Newlands, 1951. Top right: House Levin, Langebaan, 1969. Middle left: Plan, house Bertie Roberts, 1966 (Fagan archive). Middle right: Ground floor plan, house Raynham, 1967 (Fagan archive). Bottom right: Roof plan, house Neethling, Durbanville, 1985 (Fagan archive). Bottom right: Ground floor plan, house JJ Fagan, Raynham (1967), 2008 (Fagan archive).

Frame and enclosure

The Modernist shift from a Neo-Classical architecture of integrated structure and enclosure to that of frame and skin created an entirely new formal aesthetic in the early 1900s. A technological

and spatial impetus was instrumental in this regard but was nothing new. In fact, it could be regarded as a return to an ancient architecture. Semper (1986: 2) described architecture as being defined by four elements, the roof, the mound, the hearth and the woven wall, elements easily recognisable in Fagan's houses. His architecture mediates between the climatic need for thermal mass and spatial linkage by using the spatial logic of a framed building, subsuming it within the traditional stereotomic model.



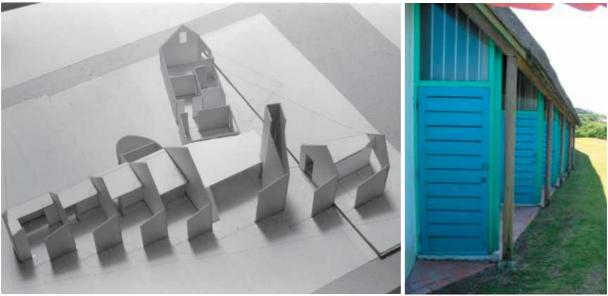


Figure 13
Top left: Ground floor plan, Bertie Roberts, Camps Bay, 1965, (Fagan archive). Top right: Plan, Marcel Breuer. Bottom left: Model, House Swanepoel, Cape St. Fancis, 1980 (Fagan archive). Bottom right: Framed roof support, House Swanepoel, Cape St. Fancis, 1980.

Space and volume

I feel that today's house at least, call for a certain inner complexity to provide for various moods (Fagan 1983: 9).

The Corbusian piloti system fostered a universal architecture that emphasized horizontal planes and limited volumetric variation. The traditional Cape model relied on mono-pitch or pitched roof forms which emphasized a separation of ceiling void and internal space.

In Fagan's houses the division between internal realm and ceiling void is mediated by a continuous ceiling plane defining spaces and functional zones, while providing an ever-changing internal experience. The tension between wall and roof elements results in a dichotomous and hybrid form that prevents spatial monotony.





Figure 14 Left: House Swanepoel, Cape St. Francis, 1981. Right: House Raynham, Newlands, 1967.

Focus and function

Fagan has described the importance of the chimney as such:

Lacking front gables as a signboard, and because the fireplace now functions apart from the kitchen (and also possibly because today a house is not always a home!) I have often built chimneys suggesting these traditional shapes, but rather placed the chimney in a predominant position to proclaim clearly the position of the hearth, in the heart of the house, as symbol of the home, of warmth and of the provision of food" (Fagan 1983:10).

In Fagan's houses, Semper's notion of the hearth as one of the prime generators of built form takes on more meaning than traditional Cape models where the chimney formed an extension of the end wall. In Fagan's typologies it shifts from a position of engagement to importance, either internally to hold up the roof as in house 'Raynham' (1967), or as in 'Die Es' (1965) as a frontal piece expressive of what the gable use to represent. Its shifting position in each scheme provides the tension of recognition against unexpected placement

Technology and form

Tradition and technological invention, simple technologies and sophisticated techniques

We must use technology to produce our own vernacular an architecture where man who lives in the house is part of the design process. This will be an architecture of our technology and our varying ways of living – not an international architecture (Fagan 1972: 2).

The childhood influences of boat-building and technological inventiveness, an engineering training and the development of these attributes in Fagan's career have allowed him to appreciate the properties and qualities of materials. But the simplicity of Fagan's technological solutions belies their inner complexity, richness and effectiveness. They rely on years of tradition and the possibilities inherent in new technologies.

Fagan is the polymath architects aspire to be. After studying engineering and before taking up architecture he had a feeling for and knowledge of all things technical (Buchanan 1995: 1).

The simple hinged shutter technology of the vernacular tradition is elevated to new heights in the rotating versions first employed by Fagan in his parents' house, 'Keurbos', in Bishopscourt in 1951. This can be attributed to Fagan's natural talent for making. It was partly inherited from his father and fostered by the encouragement and material support he received as a child. It was

also influenced by a Modernist architectural education where issues had to be resolved from first principles.









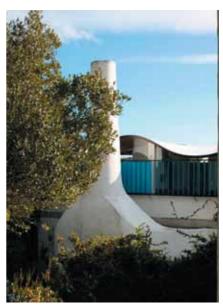


Figure 15

Top left: House Fagan, Langebaan, 2003. Top right: House Raynham, Newlands, 1967. Bottom left: House Swanepoel, Hermanus, 1991. Bottom middle: House Beyers, Betty's Bay, 1998. Bottom right: Die Es, Camps Bay, 1965.

The shutter never forms part of the window or the wall, but is placed in true modernist fashion as a separate planar element away from the wall surface. There is thus a tension between a stereotomic architecture and tectonic plane. Walls are most often treated as simple brick elements with little definition save for a painted brickwork finish. The openings are the elements, manipulated and newly invented and this tension both ties to and divorces from the vernacular tradition. Roofs tend to be the most technologically exploited elements, particularly in the double pitched typologies, where they mould to the walls below, shift and break to allow light and volumetric focus. In 'Beyers' House' in Betty's Bay (1998) contextual and spatial informants fostered a cantilevered support system.



Figure 16

Top left: North facing louvers, house Die Es, Camps Bay. Top right: Adjustable louvre mechanism, house Keurbos, Claremont, 1951. Middle right: Model of roof of Die Es, 1965 (Fagan archive). Top right: model of Die Es roof (Ryan Taylor, Grade 11). Bottom left: Roof light, house Swanepoel, Cape St. Francis, 1980.

Bottom right: Cantilevered structure, house Beyers, Betty's Bay, 1998.

Conclusion

Fagan's heterotrophic architecture was initiated during an inventive childhood. The nurturing environment and inherited skills fostered creativity and set the platform for mediation. A scientific and artistic tertiary education furthered Fagan's ability to reconcile contradictory influences and this finally found expression in his first house 'Keurbos' (1951) and with Volkskas Bank (1951-1963) where he reconciled corporate expression and context. Thereafter a personal and unique architecture developed through the mediation of new and restoration work.

The mediatory process is one of reconciliation. It is both and in its resolution and provides tension of familiarity and newness. It counters notions of Critical Regionalism's resistance to universalization by creating a relative regionalism as it accepts and extends its origins by building on both Modernist and vernacular traditions.

Fagan's domestic architecture mediates extremes all in a framework of making place specific architecture creating a new tradition, founded on the old, but tempered by modern requirements and the possibilities of new technologies.

Notes

- 1. The term heterotrophic is a biological term that describes living organisms which "have to make use of partially synthesized ingredients from other simpler organisms" (Bullock, A and Stallybrass, O. (eds): 47). The word hetero is derived from the Greek heteros means different or other (when combined with other words) while trophic (trophos in Greek) means feeder. These meanings can be extended to architecture through an analogy of the new living organism (the new architecture) being fed (created from) other simpler organisms (principles of modernity and tradition).
- 2. The "rule" can be described as a reflection of the principles of both modernist and traditional typologies. It is almost as if the "rule" presents itself as a tribute to the principles of the past and is then manipulated into a new language.
- 3. Eileen Gray (1878-1976) was an Irish born designer and architect that completed most of

Works cited

- Beck, H. (ed.). 1985. Architects House, Camps Bay Cape Town. *UIA International Architect* (8): 48-9.
- Buchanan, P. 1995. Keeping a good house. Architect-designed houses in South Africa. *Architectural Review*, (3).
- Constant, C. 2007. *Eileen Gray*. London and New York: Phaidon Press Limited.
- Eggener, K. L. 2007. Placing resistance: a Critique of Critical Regionalism. In V. B. Canizaro (ed.), *Architectural Regionalism. Collected Writings on Place, Identity, Modernity, and Tradition:* 395-407. Princeton Architectural Press.
- Fagan, G. 1975, December 11. (Odendaal, Interviewer).
- Fagan, G. 1996, October 25. An enabling architecture. *Eaton Memorial Lecture*.
- Fagan, G. 1983, May/June. Architectural language. *Architecture SA*: 50-51.
- Fagan, G. 1969, September 2. Architecture and your home: 1-5.
- Fagan, G. 1955, January. Boukuns in Lourenco Marques.
- Fagan, G. 1977, April 20. Glimpses of the Cape Series: Architecture. Cape Town.
- Fagan, G. 1972, June 4. Internationalism in the creative arts. Is it valid or not? Cape Town.

- her work in France. She synthesised the "pure, minimal lines of Modern Movement aesthetics with a sense of comfort, practicality and wit" (Constant) and a contextual sensitivity.
- 4. Philip Johnson (1906-2005) and Henry-Russell Hitchcock (1903-1987) compiled a book to record the International Exhibition of Modern Architecture held at the Museum of Modern Art in New York in 1932. The exhibition concentrated on stylistic commonalities between |Modern Movement architectures in different parts of the world.\
- 5. The "Brazil Builds" exhibition of 1943 documented South American Modernism and showed the positive influence of climate and context on a universal architecture. The subsequent book by Kidder-Smith found much favour in South Africa due to the similarities in climatic response.
- Fagan, G. 2008, April 14. Interview with Gwen and Gawie Fagan. (Author, Interviewer) Cape Town.
- Fagan, G. 2007, September 26. Modern Regionalism. Stanford.
- Fagan, G. 1977. Restoration of Church Street. *Museums conference*. Cape Town.
- Fagan, G. 1976, October 12. SABC.
- Fagan, G. 1991, August 28. Sophia Gray Memorial Lecture.
- Fagan, G. T. 1985. Regionalism. *Architecture student conference*: 2-3. Cape Town.
- Fagan, G. 2002, August. The Castle of Good Hope.
- Fagan, G., & Fagan, G. 2010, July 8. (A. Barker, Interviewer)
- Fagan, H. (2009, June 2). Gawie. (A. Barker, Interviewer) Cape Town.
- Fagan, H. 2005, November 15. Gawie's love for music. *VASSA Special Edition*. (A. v. Graan, ed.) Cape Town: Vernacular Architecture Society of South Africa.
- Fisher, R., le Roux, S., & Maré, E. (eds.). 1998. *Architecture of the Transvaal*. Pretoria: University of South Africa.
- Fisher, R., Murray, N., Sanders, P., & le Roux, H. 2003, March. The Modern Movement Architecture of four South African Cities. *Docomomo - Modern Heritage in Africa*, 28: 62-75.

- Frampton, K. (1992). In praise of Siza. *Design Quarterly,* (156): 2-5.
- Frampton, K. (2001). *Le Corbusier.* London: Thames and Hudson.
- Frampton, K. (2007, September 12). The award of AIA honorary membership to the South African architect Gabriel Fagan. New York, USA.
- Gwen, F. 2002, September/October. Castle of Good Hope. *Architecture SA* 20.
- Heynen, H. 1999. *Architecture and Modernity*. Cambridge, Massachusets; London, England: MIT Press.
- Joedicke, J. 1969. *Architecture since 1945*. London: Pall Mall Press.
- Jooste, J. 2008. Karel Jooste Architect (1925-1971).
- Mumford, L. 2007. Excerpts from the South in Architecture. In V. B. Canizaro (ed.), *Architectural Regionalism Collected writings on Place, Identity, Modernity and Tradition*: 97-101). Princeton Architectural Press.
- Nation, S. 2008. Unpublished memoirs. 8.
- Ozkan, S. 2007. Regionalism within Modernism. In V. B. Canizaro (ed.), Architectural Regionalism. Collected Writings on Place, Identity, Modernity and Tradition: 103-9. Princeton Architectural Press.
- Ozkan, S. 2006. Tradionalism and vernacular architecture in the twenty first century. In L. Asquith, & M. Vellinga (eds.), *Vernacular Architecture in the 21st Century. Theory, Education and Practice*: 97-109). London and New York: Taylor and Francis.
- Pallasmaa, J. 2007. Tradition and Modernity: The feasibility of Regional Architecture in Post-Modern Society, in V. B. Canizaro (ed.), *Architectural*

- *Regionalism*. Princeton Architectural Press: 129-139.
- Pelkonen, E.-L. 2009. Alvar Aalto Architecture, Modernity and Geopolitics. Pelkonen, Eeva-Liisa;.
- Porphyrios, D. 1982. Sources of Modern Eclecticism - Studies on Alvar Aalto. London: Academy Editions.
- Pretorius, H. A. 2006. Propriety and Syntax Some Reflections on Gawie Fagan's work, *Architecture South Africa* (March/April): 50-52.
- Prinsloo, I. (ed.). 2000. Architecture 2000. A review of South African Architecture.
- Sanders, P. 2005. Beyond Barrie's House: the emergence of a regional domestic architecture in Natal during the 1960s. *Proceedings SAHANZ 2005*: 315-21. Napier, New Zealand.
- Semper, G., & Mallgrave, H. F. (1986, Spring). London lecture of November 18, 1853: The development of the wall and wall construction in antiquity.

 Anthropology and Aesthetics, 11: 33-42.
- Silverman, M. 1999. Nationalism, architecture and Volkskas Bank. In H. Judin, & I. Vladislavic (eds.), *Blank... Architecture, apartheid and after*: 129-143. NAI publishers.
- Speck, L. W. 2007. Regionalism and invention, in V. B. Canizaro (ed.), *Architectural Regionalsm. Collected Writings on Place, Identity, Modernity and Tradition*. Princeton Architectural Press: 71-9.
- St John Wilson, C. 2007. *The Other Tradition of Modern Architecture the uncompleted project.* London: Blackdog Publishing Limited.
- Tzonis, A. 2001. *Le Corbusier The Poetics of Machine and Metaphor*. New York: Universe Publishing.

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