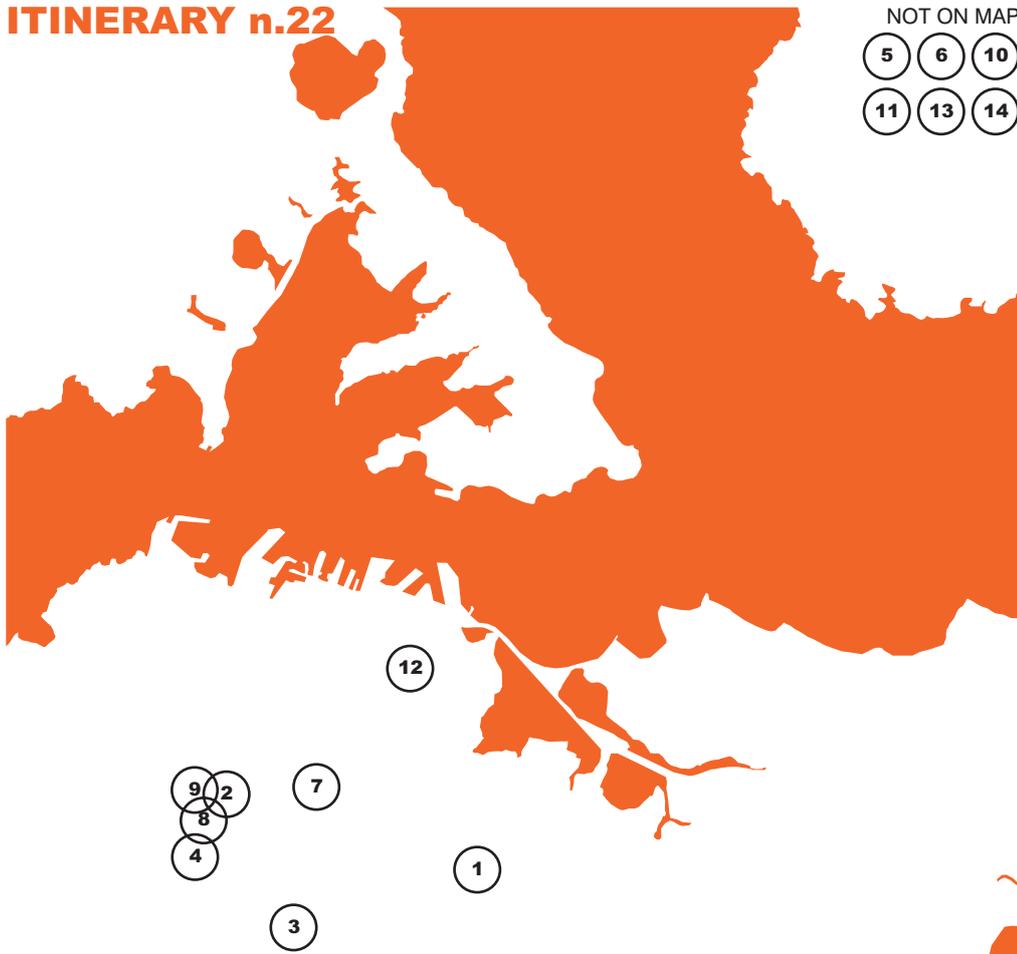


ITINERARY n.22



SGA: Sustainable Housing

At a recent lecture in Melbourne, Toyo Ito spoke about the influence of nature on his work – how his buildings are conceived around images of flowing water, geometries of natural growth, and so on. A certain poignancy, lost on neither speaker nor audience, surrounded Ito's references to nature, as it had only been a few days since disastrous bush fires had killed hundreds just outside the city. Equally distant from seeing nature as a sometimes pitiless force and from Ito's metaphorical approach is the attitude of the "Aussie naturals" such as Glenn Murcutt and Peter Stutchbury. These architects belong to a pragmatic stream of modernism for whom a response to the specifics of site and climate is the key driver of their designs. This is architect's architecture: concerned with what are often regarded (down under, at least) as the fundamentals of building design – orientation, topography, clearly expressed tectonics, the cycles of daily life.

Over the last few years Strachan Group Architects, under the leadership of Dave Strachan, has emerged as one of NZ's most exciting advocates of this approach. SGA's design mantra is "form follows climate". Strachan was not the first to coin the phrase – it was often used by Indian eco-regionalist Charles Correa – but he's become the most prominent local proponent of this approach. SGA's version of climate-focused design is thoroughgoing but lo-fi, employing inventive planning solutions and details but avoiding high-tech gadgetry. One of Strachan's key innovations is what he calls the "climate modifying room". At the Urban Shed, for example, this room acts as a natural climate control zone that can be opened and closed to suit weather and seasonal conditions. An exposed concrete floor for thermal mass combines with carefully oriented and shaded glazing to provide passive heating, while pivoting doors, sliding shutters, and walls of glass louvers provide natural ventilation and cooling. Such spaces establish a fluid connection to the outdoors, and the operability of these rooms not only makes them adaptable to suit season or time of day but makes them functionally dynamic – they can be closed down to create intimate spaces on winter evenings or thrown open for large social events.

SGA's designs employ unfinished materials in a sensibility that marries industrial toughness with informal bach-y-ness. The jury citation for SGA's NZIA Resene National Award described the Urban Shed as "a prodigious celebration of the pioneering spirit. Inventive, exploratory, intuitive, instantly belonging to New Zealand culture in a sophisticated No.8-wire-kind-of-way". The directness and modesty of these buildings, and the absence of extraneous references or aggressively contemporary form-making, place it in a much-loved Kiwi lineage from Vernon Brown through the Group to Nigel Cook's "wind-rain" houses and Melling: Morse's low-cost homes. It is an architectural New Zealand-ness that seeks to transform with old school charm rather than revolutionary zeal; cow sheds and whare rather than kete bags and fale; Ed Hillary rather than Peter Jackson. This work, though, is ambitious; SGA's approach is genuinely experimental. Paradoxically, however, SGA's verve and convictions give their output a remarkable consistency that stands out in a local scene dominated by eclecticism.

SGA's work presents thoughtful new models for residential architecture, but so far has been confined almost exclusively to single-family suburban or rural houses. The exciting possibility is to imagine Strachan's inventive and forward-thinking approach being applied to higher-density housing and other building types. The Lockwood and KidsCan projects are evidence of SGA's ambition to make sustainable urban lifestyles available to a much wider public. *Andrew Barrie*

Biography:

Dave Strachan was born in Feilding in 1953, but grew up in Te Awamutu (alongside the Finn brothers), spending much of his time on the farms of friends and relatives. After two years of a BCom/LLB at the University of Auckland, he switched to architecture. He cites the "sensible" approach of teachers David Mitchell and Fred Beckett as particularly influential during his studies. After graduating in 1979 he moved in and out of practice, his digressions including working as a builder with his own design-build construction company, completing secondary school teacher training, and a spell at Fletcher's. Feeling frustrated with developer-driven work and looking for a new direction, undertook a MArch in sustainable design at the University of Auckland, completed in 2000, and participated in the Glenn Murcutt Masterclass at Newcastle University, Australia. Since 2005 he has been teaching at Unitec, latterly as Adjunct Professor of Design. Strachan's practice was established in its present form, Strachan Group Architects, in the 1990s. Pat de Pont joined SGA as practice director in 1992. The practice now has a total of 5 staff.

1

2003

Enclave Houses
6 & 6a Omaha Road
Remuera



Composed as a series of simple gabled and hip-roofed forms that blend the project into their conservative suburban context, this pair of identical urban villas tweaks the traditional townhouse model. A developer-driven project, this a sophisticated response both to the usual developer's need to densify the suburbs and also to issues of durability and sustainability. A palette of unfinished materials (cedar, raw plaster, zinc, aluminium, and stainless steel) provides robustness, while careful design moves (extra insulation, concrete floors to provide thermal mass, windows with louvers and overhangs placed to catch sun and allow natural ventilation) reduce energy consumption. This project won an NZIA Resene Local Award in 2004.

2

2004
Essex Cottage
11 Essex Road
Mt Eden



Standing on small 320m² site in a Res 5 zone – no design rules! – this project took as its base a petite villa that had been damaged by fire and then further butchered during the repair, with a veranda and bay window having been amputated. SGA's brief for the renovation project was simply to make the building a more sensible place to live. Reconfiguring the villa as a three-bedroom house required some inventive planning. In the drive for compactness, SGA resorted to some Japanese-inspired solutions that also influenced the landscaping – note the shoji-screen like panels in the front yard.

3

2004

Link Pavilion
126 The Drive
Espom



The need to create a new living space was met by inserting this simple, elegant pavilion between two existing buildings – a bungalow and its detached garage. The connections between new and old have been deftly handled, the pavilion sliding under the main rooflines, ensuring the differing forms of the three buildings remain clear. Sheltered under a mono-pitch roof, a wall of sliding glass doors connects the pavilion's living space to the garden. Over-sailing this glazing, this roof shades the space in summer while allowing winter sun to penetrate and heat the thermal mass of the exposed concrete floor. Only just visible from the street. See *Your Home and Garden* Feb. 2006.

4

2004

Woodside House
9 Woodside Road
Epsom



An alteration to a bungalow, most of the action occurs out of sight at the rear of this house. The jury citation for the 2005 NZIA Resene Local Award read: "The addition reworks the existing internal spaces and modifies the rear of the villa to create a warm and inviting homely environment. A studio building is relocated to provide a usable back yard for entertaining and recreation. Contemporary materials and finishes complement the existing house in a fresh and vigorous manner." See *Kitchens & Bathrooms* Vol 12 no. 1 and no. 4.

5

2004

Point House
25 Moir Point Road
Mangawhai Heads



Photo: SGA

Built on a large but steeply sloping, south-facing site, this house has been placed on the site to have minimal impact; composed as a 5m-wide-bar, it is threaded between manuka and kanuka trees. The street-facing south façade is relatively closed, the monolithic cedar wall animated by carefully composed slots. The decks and extensive glazing of the north face opens the living spaces up to dappled sunlight and the adjacent trees. This project's version of the climate modifying room is a glass-roofed breeze-way. The house was a *NZ Home & Entertaining* Home of the Year finalist in 2005 and won a NZIA Resene Local Award the same year. See *NZ Home & Entertaining* Aug./Sept. 2005 and *Dwell* March 2009.

6

2004

Foothills House
54 O'Leary Road
Pokeno



Photo: SGA

When this house won an NZIA Resene Local Award in 2007, the jury citation read: "Stunning wide-screen views over the North Waikato basin belie the skill and expertise used in designing a sophisticated "rural shed" for a family. Sensitively set back into the side of a large hill, this home is carefully crafted, feels open and warm and protected, yet is very contemporary. The use of materials that express the nature of the material and casual yet cosy design allows sheltered family use that takes advantage of all the aspects of the exposed site and turns it into an exciting set of living spaces." See *Insite* 19 2008/09, *Houses* NZ 05 (2007).

7

2005

Platform House
5 Castle Drive
Epsom



Tucked into the northern slopes of Maungawhau-Mt Eden, this house is located down a right-of-way on a site surrounded by substantial traditional homes and mature trees. Feeling the need to rise above the enclosure created by the mountain and surrounding trees, Strachan placed living areas, climate modifying room, and decks on the house's upper floor. This lifted the spaces into the sun and breeze, and provided views through the trees over the surrounding "burbs". The house is also visible from above on the public path up the mountain.

8

2005

Urban Shed
7 Ngauruhoe Street
Mt Eden



Strachan's own house, this project is the re-invention of a 1920's bungalow. The bones of the old house have been reordered and re-skinned with a palette of unfinished materials – exposed concrete, gabion-caged scoria, Zinalume, and plywood. A virtuoso exposition of the principles of sustainable design, the design makes use of natural ventilation, thermal mass, high levels of insulation, sun screens, and solar water heating. The key element is an "outdoor room" which establishes a connection to the garden and views to nearby Maungawhau-Mt Eden. The house is also visible from the public carpark at the rear. The project received an NZIA Resene Local Award in 2006 and a National Award in 2007. See *NZ Home & Entertaining* Oct./Nov. 2006 and *Architecture* NZ May/June 2007.

9

2006

Mountain View House
12 Essex Road
Mt Eden

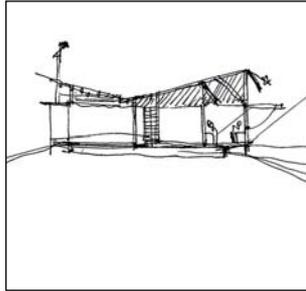


Located on a quiet side street just behind the Mt Eden shopping village, this house for Strachan's parents is located just over the fence from his own home. Contrasting with the closed forms of the surrounding villas, SGA placed a double-height glazed space at the northern, street-facing end of the house bringing in sun and views of the mountain. A series of doors and operable windows allow this double-height space to be closed down to create more intimate spaces or thrown to the outside. The house received an NZIA Resene Local Award in 2007. See *Habitat 07* (Summer 07/08).

10

2005

Bream Tail House
Lot 6, Bream Tail Farm
Mangawhai Heads



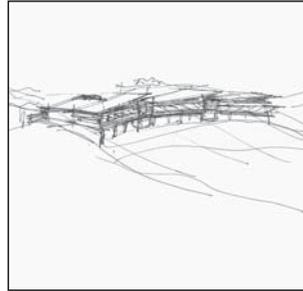
This house is built on a sensitive site, the building platform being hemmed in by middens and earthworks left by early Maori occupation. The building, therefore, bends to follow the line of an old road that passed across the site, thereby creating little new disturbance. The house itself is classic SGA: an asymmetrically gabled roof hovering over concrete floors and walls arranged to provide thermal mass. See *Houses NZ 10* (Summer 2008).

The Bream Tail Farm is a gated development, but the house is just back from the beach near MAP's NZIA National Award-winning Lodge (2006). Those not wanting to walk on the beach can visit SGA's nearby Treehouse (2000) at 63 Cheviot Street, Mangawhai Heads.

11

2006

Owhanake Bay House
209 Delamore Drive
Waiheke Island



This house overlooks the walkway – locally referred by locals as the “architects walk” – that leads from the Matiatia ferry terminal to nearby Owhanake Bay; houses by Fearon Hay, Simon Carnachan, and Richard Priest stand in the neighborhood. Built for elderly clients on an insistently sloping site, SGA's goal was to keep the house on a single level. The house was configured as a narrow, sinuous volume folded around the contours. The wedges of space created where the form bends have been filled with wet areas - a bathroom and a plunge pool. The form extends outward to bring in light – the roof lifts up to the north to admit winter sun and a series of copper clad fins on the south face bring oblique light into a corridor.

12

2007

Crescent House
33 Gibraltar Crescent
Parnell



Commissioned by a client attracted by the Enclave Houses, this house stands amidst a number of new houses on a difficult site: steep, criss-crossed by drains and sewers, and severely hemmed in by its town planning envelope. The result, however, was one of SGA's most urbane houses – a form that folds and wraps down the site, but still provides an enclosed courtyard on the north side of the house, provides views to the domain across nearby railway line, and opens up vistas to the more distant city skyline. While you're in the neighborhood, take a look at SGA's Gladstone Home/Office (1994) at 112 Gladstone Road.

13

2008

Lockwood Gullwing
55 Fairy Springs Road
Rotorua



Photo: SGA

In a very 21st century version of the Modernist dream of making high-quality design available to the masses, SGA produced a series of designs that make environmental and sustainable accessible and affordable. The Gullwing show home is the first from this Lockwood EcoSmart Series to be built. Its design adapts Lockwood's solid wood construction – the famous knotty pine has been blonded – while also incorporating SGA's eco-design moves such as carefully positioned thermal mass, an outdoor room, and a planted entry courtyard. The house stands in Lockwood's national show home village, and is open 10am to 4pm, 7 days a week. See *Home NZ* Aug./Sept. 2008 and the Lockwood website – www.lockwood.co.nz.

14

2008-

Kidscan Studio Project
Unitec, Carrington Road,
Pt. Chevalier



This project originated in Strachan's teaching activities at the Unitec School of Architecture. Strachan, working with sixteen Master of Architecture students, put together a project to design, document, and construct a beach house. The design follows sustainable principles, and based on the idea of encampment has been divided into two loosely related pavilions. Overseen by SGA and celebrity chippie Cocksy, the first section (a bedroom unit) was built in a Unitec carpark in 2008; the second section will be finished this year. When completed, the house will be sold with all proceeds going to Kidscan, a national charitable trust dedicated to meeting the basic needs of disadvantaged children. See *Home NZ* Dec./Jan. 2009.

Other Addresses:

Wooden Tent (1992)
Whangarei Heads Rd,
McGregors Bay
See *NZ House and Garden*
Feb. 1996.

Goodwin House (1997)
38 Griggs Road, Whitford
See *Your Home and Garden*
June 1999.

Cleavage House (1998)
19 Tirinui Crescent, Tairua
This house won an NZIA
Resene Local Award in 2001.
See *NZ Home & Entertaining*
Dec./Jan. 2000.

Escarpment Houses (2001)
24 Wainui Rd, Raglan
An NZIA Local Award winner
in 2003.

Glade House (2007)
18 Te Kowhai Place, Remuera
Standing behind a gate at the end of a long right-of-way, not much can be seen of this house. However, Stevens Lawson's Remuera House (2003) is down the same right-of-way, so its still worth the trip.



Glade House

Sources:

Except where noted the photographs are by Andrew Barrie; the drawings are courtesy Strachan Group Architects. Many thanks to Dave for his generous help in preparing this guide.

The best single source on SGA's work is a long text on their values and design methodology, with photos of a number of the houses, published in Johann Bernhardt's *A Deeper Shade of Green* (Auckland: Balasoglou Books, 2008). SGA's website – www.sgaitd.co.nz – is also a comprehensive presentation of the firm's approach and output. The firm's work has been widely published in recent journals, and has also been published in a number of books: the Point House was published in Stephen Craft's *Contemporary Beach Houses Down Under* (Mulgrave, Australia: Images Publishing, 2008); the Foothills House and Urban Shed appeared in Tony van Raat's *Trenta Case: Thirty Houses in New Zealand* (Auckland: 2007); the Mountain View House was published in *Eco Architecture: Urban Style* (Koln: Evergreen/Taschen, 2008); and the Foothills House in *Eco Architecture: Natural Flair* (Koln: Evergreen/Taschen, 2008).