

Case Study:
Sang Architects &
Company Limited



THE PURSUIT OF MODERN DESIGN IN NEW ZEALAND



Ron Sang's life began in Fiji, but he calls the island nation of New Zealand home, having arrived there in 1957 at the age of 19 to study architecture. The move proved a judicious one. Today, he is the principal and director of Sang Architects & Company Limited in Epsom Auckland, and he enjoys working occasionally with his son, Darryl, who runs Darryl Sang Architects Limited in nearby Ellerslie.

While the senior Sang's focus is primarily residential, something he believes is "a very personal and satisfying business," he recently incorporated landscape, graphic, and interior design into the firm's portfolio, the latter of which stems from his side interest as a well-respected art collector, exhibitor, and publisher. In fact, one can often discover small niches throughout the homes Ron designs that are meant to hold pieces of art. Providing provisions for such spaces, he says, lets owners bring their own personality and color into a space.

Father and son share a similar design approach that departs from New Zealand's rustic style and favors a more international style reflective of U.S. and Australian architecture. Additionally, both men honor

their Chinese heritage through feng shui, the ancient Chinese art of harmonizing humanity with nature. Water, therefore, plays a large role in their work and serves as an important design feature. Ron also loves to design oversized front doors, derived from the large doors in Chinese temples. "They really open a house and let energy enter a room," he explains. This approach yields easy-flowing, open spaces with clean lines that provide a backdrop for comfortable family living. He aims for a fairly open layout, yet one can't see everything from one position. "This is how we design houses — with open planning but not totally open," Ron says.

Striving to achieve such a result forms the basis of their design philosophy, and it's been a successful approach. Their signature architecture has been featured in top publications like *Trends* magazine and garnered many prestigious awards. Ron was even made an officer of the New Zealand Order of Merit for services to architecture and the arts, a highly respected post established by Queen Elizabeth II.

Ron's biggest prize, however, has been his relationship with his son. "When Darryl was in school," says Ron, "I never insisted that he become an architect because I think architecture is a damned difficult job, but I was delighted when he changed from initially pursuing chemical engineering. Now, we have a lot in common. I'm delighted that we share many projects together."



Father and son Ron (r) and Darryl Sang enjoy the opportunities they've uncovered to collaborate on multiple projects in New Zealand.

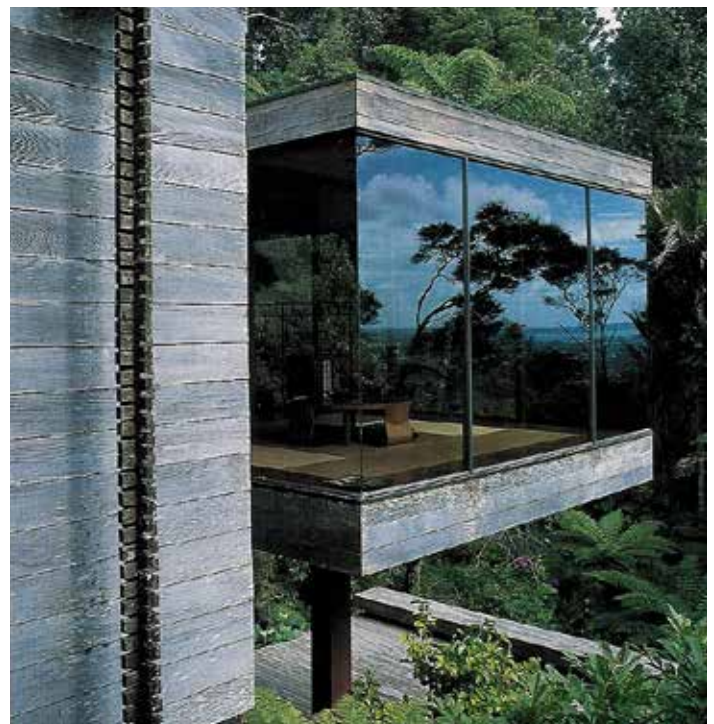


The Brake House was designed as a serene, harmonious, and unobtrusive home in a natural bush setting. The result is a brilliant combination of spaces and places of exquisite quality and beauty, including a distant outlook to the city.

The Brake House: Modern, Even Now

Long before father and son teamed up, however, Ron shaped what's perhaps his most iconic design, The Brake House, built for the late New Zealand photojournalist Brian Brake in 1974 on Titirangi's Scenic Drive in the Waitakere Ranges west of Auckland. The DOCOMOMO New Zealand, an organization devoted to the history, preservation, and reassessment of modern architecture, proclaimed the home one of the top 20 modern buildings, sites, and neighborhoods in the country. The Brake House also earned the NZIA Enduring Architectural Award in 2001 and the NZIA (Auckland) District Branch Design Award in 1985. "It is a house that is almost timeless," Ron says. "Houses I design today would be comparable to that house designed in 1974."

An organic part of the surrounding bush, the home commands views of the distant city and represents Ron's "ageless modernity" style. The site played a large role in sculpting the space. In concept, Ron placed a string of rectangular boxes atop a concrete bridge spanning the valley, and four wings encircle a courtyard. The entrance makes a statement and features a long totara-decked bridge leading to the front door. "Our client wanted the approach to the house to be an experience, and it is," he adds. "Brian ended up with a very modern house, much to our delight."



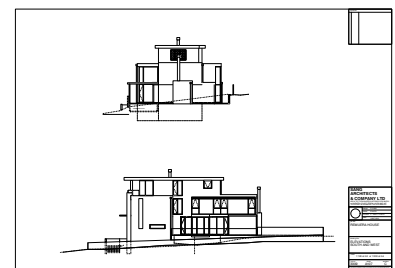
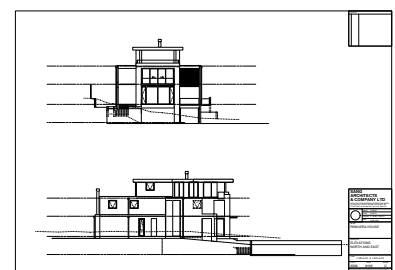
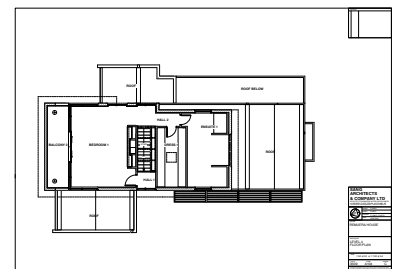
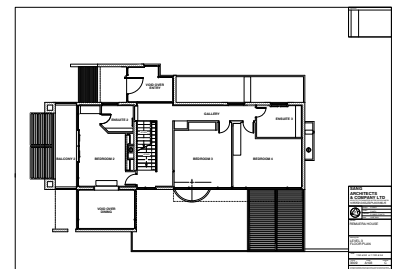
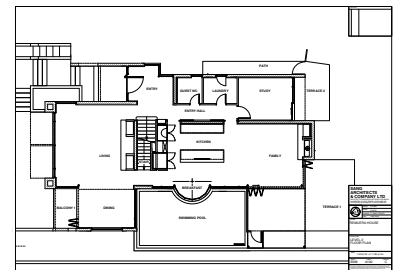
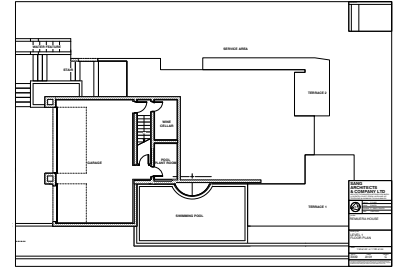
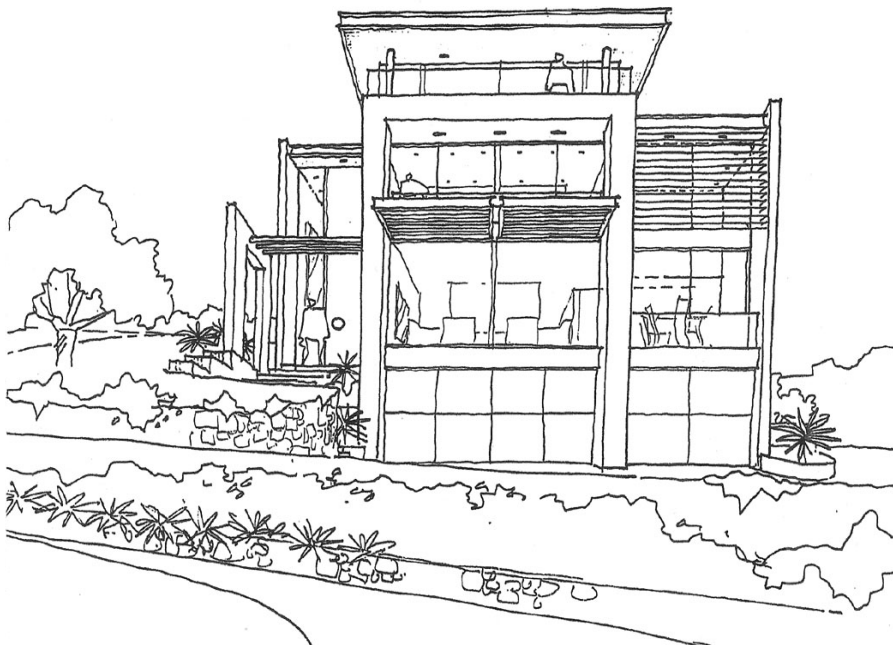
A large, glass-sided, tatami-matted room projects out into the bush and contrasts with the home's cedar exterior, chosen to weather in time and attract moss.

Vectorworks Completes the Picture

Achieving this contemporary design, however, didn't happen with modern tools; it was the 1970s, after all, well before Vectorworks® software was first developed in 1985. But modern tools would soon play a critical role in Sang Architects' workflow, driving efficiency, accuracy, and consistency benefits. It was son Darryl who learned how to use various Mac-based CAD software programs, including Vectorworks' predecessor, MiniCAD®, in architecture school and while working in London early in his career. At that time, Darryl worked exclusively in 2D. By 2002, he enabled Sang Architects' transition to Vectorworks Architect, chosen for its object-oriented interface and 3D capabilities.

To turn their visions into reality, Sang Architects' typical workflow starts with Ron drawing initial concepts by hand. Next, Ron turns over his vision to Darryl, who converts those ideas into working drawings in the software. Darryl fills in all the construction details using the program's built-in features and intuitive design tools. "Because the houses we design are so unique, there is always quite a lot of detailing, as well as the building itself and all the construction details, so the result is a very comprehensive set of drawings," says Darryl. "He creates 60 to 70 sheets per project," Ron adds with a smile, adding it would be impossible to generate all this work manually.

Darryl appreciates the meticulous detail he can achieve in his CAD drawings, noting that he also prepares a complete set of interior drawings "even down to where the toilet roll holders go," he laughs. "We like Vectorworks because there's a low learning threshold. It's quite intuitive, and you can become quite proficient in it quickly."





With a buildable site height of ten meters, the Remuera Residence features a unique fourth floor master bedroom.

Remuera Residence: An Archway to the Sky

One modern icon that benefits from having been designed with Vectorworks software — and even landed the firm a cover story in *Trends* magazine — is the Remuera Residence. Designed for developer Andrew Kolovos in 2003, the home sits on a narrow lot with a buildable height of 10 meters. Ron and Darryl worked together to maximize this space with a sleek, vertical design. The four-story residence sits on a knoll high above sea level, affording panoramic views of Auckland Harbour. It has a three-car basement garage with a main living room, family room, and kitchen on the first floor with doors that lead to a pool and garden. The second floor has three guest suites.

The main floor also hosts a gallery for art and ceramics. “I’m not a minimalist,” says Ron. “I don’t do houses that are totally empty inside. I like a house to feel warm and human. Individual owners bring their own color into the house. An architect designs a house, but he makes provisions for the owners to put in their own feelings.”

A strong, stable arch shape resonates throughout the house and is echoed in the exterior’s frame, as well as in features like the bathroom faucet and kitchen counter. “This consistent approach grounds the house,” remarks Darryl. They also brought the pool’s edge right up

to the home’s windows to add another dimension to the design. The home’s focal point, however, is the red, 5.5-meter front door. “I always start off with something dramatic at the entrance,” notes Ron.



A series of platforms leads up to the Ron Sang signature double-height front door dressed in red.

Farm Cove House: Reflections of Brilliance

Another project that features a massive front door is a 650-square-meter private residence built in 2011. In this case, Ron convinced the client to replace rather than modify her previous home, which did not employ the feng shui principles she desired. Sang Architects corrected this by creating a stunning example of open spaces, soaring ceilings, and a vast infusion of light.

For example, the home welcomes visitors with an infinity pool and glass façade. The entrance connects to the main building through a glass-walled gallery and glass floor that hovers over a goldfish pond. Both the pool and water system are heated through an efficient, passive heating system fueled by solar panels.

And as with other projects, Ron and Darryl planned the furniture early in the design process to integrate seamlessly with the space. This is important at the onset because furniture and landscaping can become afterthoughts. Ron therefore encourages clients to consider these aspects of a project early. "To do a very good house is a hard job because you need more than just a house," he says. "The house is only a shell. You need interiors, artwork, and furniture."



Sang Architects employed feng shui principles to create a stunning example of open spaces, soaring ceilings, and a vast infusion of light.



Farm Cove's living room, kitchen, theatre, and guest bedroom open to a large tiled outdoor terrace and infinity pool. The pool and hot water are on an energy-saving, passive-heating system.



The entrance of the Farm Cove residence is connected to the main building by a glass gallery built over a goldfish pond with a glass floor.

Looking Ahead

While Darryl has relied primarily on Vectorworks Architect software's strong graphic 2D features to help realize projects like the Remuera Residence and the Farm Cove House, he is currently implementing more of the program's 3D modeling capabilities into his workflow.

"Terrain modeling is advantageous because we can easily see how a building fits into its site," he says, adding that as city ordinances and regulations become stricter, they can use 3D modeling to see where houses might be close to any existing site or plan constraints.

"Being able to model the whole house in 3D and examine the form and the shape — it's all important, and Vectorworks lets us do it all in one program," says Darryl. "The program helps us continue to evolve our design solutions and remain at the forefront of New Zealand's architecture landscape."

As the idea of modern design evolves and as Sang Architects advances its 3D drawing capabilities, there is room for innovation and growth. "Every new job has a chance to be a dream job, so you never know," says Ron, assessing the future. But this father and son team will gladly take that leap together.

Acknowledgements

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