

swimming pool industry, but some councils and tabloid media outlets chose to unfairly paint swimming pool owners as water-wasting pariahs.

The industry responded with a number of initiatives. These included the Eco Pool program in Queensland, the Water Neutral Pool program in Victoria and various negotiations with governments of all levels; as well as the launch of the SPLASH! Environmental Awards concept.

Pool covers were given a prominent position in many of these discussions because of their ability to restrict evaporation – one of the major forms of water loss from swimming pools. That led to a dramatic increase in the use of covers.

Now, the drought is declared over. And although we all know it will return when the cycle replays itself, at

Derek Prince from Daisy Pool Covers remembers the days when boxes of pool covers were flying out the door.

"In Queensland when they ran out of water a couple of years ago, every man and his dog wanted to do pool covers," says Prince. "We even had hairdressers trying to get credit applications! That's how crazy it was at that time. We did a lot of business up there.

"But the downside of it was that the market became flooded with a lot of imported crap. And in that hysteria, everyone was only thinking that they needed a pool cover if they wanted to top up their pool. Some didn't worry about quality."

Prince says that the influx of imported covers – some which were of very pool quality - spurred on some of the Australian pool cover manufacturers to get together and create the Pool and Spa Cover Association of Australia (PASCAA). Elite Pool Covers, Daisy Pool Covers and ABGAL were the foundation members.

"Australia is the world's leading pool cover manufacturer and has a culture of producing quality covers. We're different to other parts of the world," says Prince. "We've built a consumer expectation of a quality product. It's not just about price. In America you can pick up pool covers in petrol stations, and it's often just glorified bubble wrap.

"We're trying to avoid our market getting driven down to the lowest common denominator. The majority of our market is supplying a quality product that has a good lifespan, not cheap Chinese or American imports that will last you barely a season."

Prince says his topline cover should last eight years, although he knows of covers that have lasted much longer.

"PASCAA isn't trying to drive anyone out of the market. What we're saying is that the consumer demands a quality product. If you comply with the PASCAA specs, then it's a quality product, and good luck to you."

Prince says that up until two years ago, combating evaporation was the main reason for the popularity of pool covers. Now in the post-drought climate, pool heating and protection from dirt and debris are the two biggest selling points.

"Pool covers are relatively effective at helping keep pools clean. The fact is that when it's dry on top, debris will blow off it. But when it rains, it will stay there. More often than not, people just roll the cover up and whatever debris is on top drops into the edge of the pool. They get a scoop, clean it up and have the vast majority of the debris very easily."

Prince says the heating aspect means it's worthwhile keeping the pool pump on during the day to help circulate the warm water - and the chemicals.

"In its natural form, chlorine's a gas. And when you've got a gas and a liquid, the gas rises through the liquid and dissipates out the surface. A pool cover is a physical barrier – a physical stabiliser – stopping the chlorine from dissipating.

"When you have a pool cover on, you want the pump to be on through the heat of the day, so you can mix the warm water with the cool, and also to move the buffer of chlorine at the top of the pool throughout the pool."

Education of sales staff is key according to Prince, especially as consumers now spend so much time researching on the internet, they might actually know more than the person selling them the cover.

"We're constantly trying to educate and explain," he says. "If they know more about it, they're not afraid of it, and they can sell a lot more. They need to take the mystery away. A pool cover is a very straightforward and simple product to install and use. Once you understand that, it's a no-brainer. And it doesn't need to be expensive: a good pool cover and roller will cost about \$1000 to \$1200 installed."

Daisy has an online tool to help make it easy, where the sales staff or consumer can select the size, shape

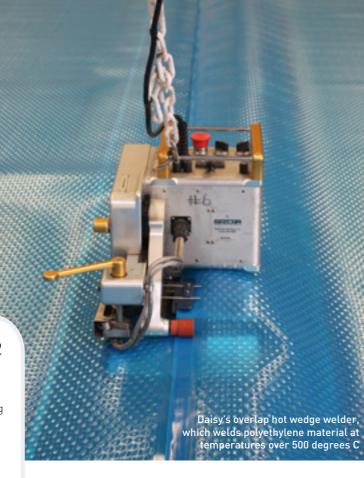
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"In Queensland when they ran out of water a couple of years ago, every man and his dog wanted to do pool covers. We even had hairdressers trying to get credit applications!"

PASCAA Certification

To achieve PASCAA Fit for Propose Certification a product must gain at least eight documented passes of the following tests. All tests must be carried out by an independent NATA approved testing facility, with the MBTF test to be carried out by AWTA.

- 1. Minimum gauge test:
 - a. Minimum total thickness at selvedge and between bubbles
 - b. Minimum thickness 90 micron measured anywhere on product
- 2. Tensile strength 15MPa or above
- 3. Tear strength 35N
- 4. Puncture resistance via falling dart impact test 700 grams or above
- 5. Light exposure performance via 4 weeks exposure in the MBTF Light Barrel Test with:
 - a. No more than 10 per cent braking force loss
 - b. No more than 65 per cent loss of elongation
- 6. Buoyancy at 1.5lit/m2 or above
- 7. Thermal performance at 0.05m2K/W or above
- 8. Lamination tested via dry delamination test



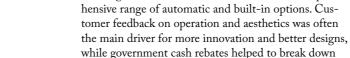
fibreglass pool program that has all the data from all the fibreglass models in Australia, and can automatically produce the prefect cover, ready to install for each pool.

Quantifying the benefits

He says that over that time, pool covers have changed from being an incredibly difficult product to sell, into an almost mandatory item.

objection to having a cover and roller vanishes," says Boadle.

and colour of cover, as well as the type of roller. They also have a



some of the consumer objections. "Following several years of serious water shortages, the recent spate of destructive hailstorms in major cities has helped sort out the weak from the strong."

"As pool covers became more popular, we expanded

our range to include thermal blankets, and a compre-

Boadle agrees with Prince that maintaining pool temperature is a big selling point.

"Approximately 90 per cent of all heat loss from a pool is through the water surface, so any impervious layer across the pool will control water evaporation and reduce overnight heat

"Even a single layer cover will work remarkably well, but the key to a good cover is whether it's easy to use day after day, week after week and year after year."

Boadle says there has been a push to quantify the beneficial effects of pool covers by promoting their 'R' value as a simplistic way to measure one cover against another.

"However, the R value only measures the resistance to the flow of heat across the cover and this only accounts for a very small percentage of the total heat losses from a pool. For example, the difference in weight between a 3mm and a 5mm thermal blanket is 20 per cent – for that extra 20 per cent weight you get just one per cent improvement in heat retention."

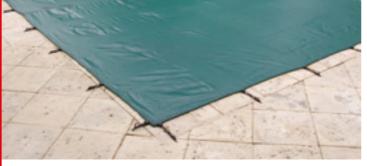
Boadle says that Sunbather's designers concluded years ago that the physical difficulty of handling a much heavier and awkward blanket was not worth the fractional gain in thermal performance.

Simon Boadle is the managing director of Sunbather, a company that has been supplying swimming pool covers for 40 years.

"Few would argue that the benefits of covering a pool are huge and once pool owners have experienced these benefits, the initial



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Top left: An aluminium Hideway in situ

Bottom right: The winter security cover material from Elite

Above: Troy welding a cover at Elite's Perth facility

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Victorian rebate

The Victorian Department of Sustainability and Environment is offering a \$200 rebate for pool covers until June 30, 2013. To qualify, the pool cover must have a roller or a device to assist with the covering/uncovering of the pool, and the cover must be a Smart Approved WaterMark product with a minimum thickness of 400 microns and be UV stabilised. Contact: www.water.vic.gov.au

A slat cover that is used properly by the pool owner is always going to be a more effective safety barrier than a pool fence."

Boadle says that slat covers have improved dramatically over the past decade and the latest designs are a great improvement over the traditional hollow chamber products.

Sunbather's latest product is from Europe's leading specialists, Covrex. It is 100 percent hail resistant and carries a five year full guarantee against hail damage. The extra strength comes from a dense foam-filled core which not only gives the slats an exceptionally high impact rating but also stops any water leaking into the slats over time.



the harder it is for the user, the less likely it is going to be used. The overall effectiveness of a pool blanket is going to be determined by how easy it is to use – not by a misleading comparison of material thickness.

"The type of cover material used, its weight and thickness are second-order concerns when compared with controlling evaporation. The main reason for this is that the temperature difference between the pool and its surrounds is normally not more than 10° C. Compare that with a domestic hot water tank where the difference is more like 30° C or more.

"From the very beginning, Sunbather's focus and design philosophy has been to make our systems easy to handle and long-lasting. And if it can be hidden out of sight when off the pool, that is a feature some customers are happy to pay extra for."

Boadle says that no matter how expensive the initial installation price of a cover, the pool owner can be assured that it is actually going to pay for itself over a number of years.

He also says more pool owners are willing to pay higher prices for automatic options, because a pool cover is one of the rare items of pool equipment that actually pays itself over time with energy savings.

"A cheaper cover pays for itself more quickly but will require multiple replacements over the lifespan of the pool," he says. "The more expensive automatic slat covers are not only easier to use but they also offer an extra layer of protection should young children gain access to the pool area.

"In European countries, slat covers have been used for decades and are accepted under some safety standards such as the French AFNOR standard NFP 90-308 as being an effective safety device. Bree Bonoro of Supreme Heating outlines the top five benefits of using a pool cover.

Save water. Reduce water evaporation by up to 97 per cent, providing water savings of approximately 50,000 to 70,000 litres per year depending on location.

Conserve energy. A pool cover will increase heat retention by up to 75 per cent, reducing CO² emissions and saving on energy normally used to run auxiliary heating systems.

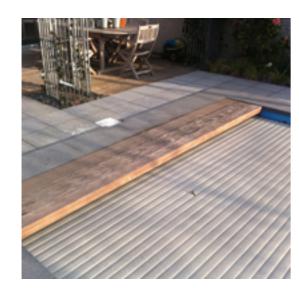
Reduce chemical loss. By conserving pool water, chemical consumption will also be reduced by 50 to 70 per cent.

Increase heat. An outdoor pool gains heat from the sun's free energy and loses heat through water evaporation and convection. A pool cover maximises the absorption and retention of heat from the sun and will increase the pool temperature by as much as 8°C.

Reduce dust and debris. Cutting out much of the dust and debris entering the pool will reduce the maintenance required to keep the pool clean.



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Left: The hail-resistant Covrex cover from Sunbather

Right: Orimatech's underbench reel system combines seating and handy storage

Changing strategy mid-summer

Richard Norrish from Elite Pool Covers agrees that nowadays the main perceived benefit of pool covers is heating – at least on the shoulder season. But as the summer heats up, Elite changes its marketing approach.

"You can gain a month either end of the summer by using a pool cover to keep the heat in," he says.

"But halfway through the summer, we change our strategy and start marketing the benefits of reduced evaporation. Especially over here in WA, evaporation with the winds and the heat is huge. Every year you could lose a total pool's worth of water.

"It gets so bad that sometimes people thing they've got a leak. But we tell them to put a full bucket of water alongside your pool and watch it go down. And they both should go down equally. You can lose inches in a week sometimes."

Norrish also says that maintenance – especially of commercial equipment – is another side of Elite's business, including servicing rollers and repairing blankets.

They also sell security covers, which are made from a material similar to trampoline mesh and are used predominantly in winter.

"They stop debris getting in the pool," he says. "But they also allow the water to soak through it. So when it dries, the leaves just blow off the top. We warrant them for ten years."

Norrish also says that continued research and development and ongoing improvement programs in design, manufacture and performance are key to keeping the market on its toes.

This is borne out with their Hideaway system, named because the cover system hides away out of sight. It's easy to operate with a single person being able to remove or replace the solar pool blanket very quickly.

Since its launch, the Hideaway has become a favourite with Elite customers. Elite also offers a range of quality rigid covers. Custom designed and manufactured to suit each pool they add value to the home while saving time, money, water and offering increased security.

Safer cover handling

John Davie from Orimatech says the increased focus on occupational health and safety has created a demand for simpler pool cover systems that require minimal manual handling in the commercial pool environment.

"Traditional mobile reel frames are falling out of favour due to handling issues when moving them around the pool concourse," he says.

"But the development of fixed underbench systems and mechanised pool winches has eliminated or significantly reduced the manual handling involved."

Orimatech supplies the Poolie's Pal mechanised pool winch that can be fitted to existing reel frames. It's a simple motorised winch that quickly and effectively pulls the covers onto the pool and then drives the reels to pull them off the next morning. In most instances this allows for one person operation.

It also looks much more attractive. The underbench reel system moves away from the traditional mobile reel frames and allows for a permanent seat at the end of the pool

Contacts

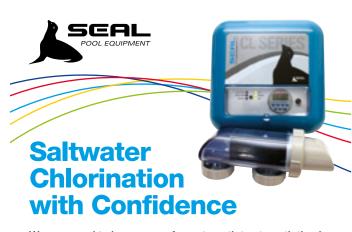
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under which the pool covers are stored. This provides an attractive seat for the pool patrons and eliminates any manual handing in moving mobile storage reels into place.

Davie says that for a commercial operator, the reduced need for manual handling and the shorter time needed to deploy and retrieve the pool covers have become key factors in the purchase of pool blankets.

Orimatech also supplies the MacBall Heat Saver system which Davie says reduces evaporation to near zero and because it insulates, it substantially reduces convection and radiation losses.

"The MacBall System provides for an excellent return on investment. Most systems pay for themselves within the first 18 months of use and continue to make financial savings with environmental benefits long after the initial investment is recouped."■



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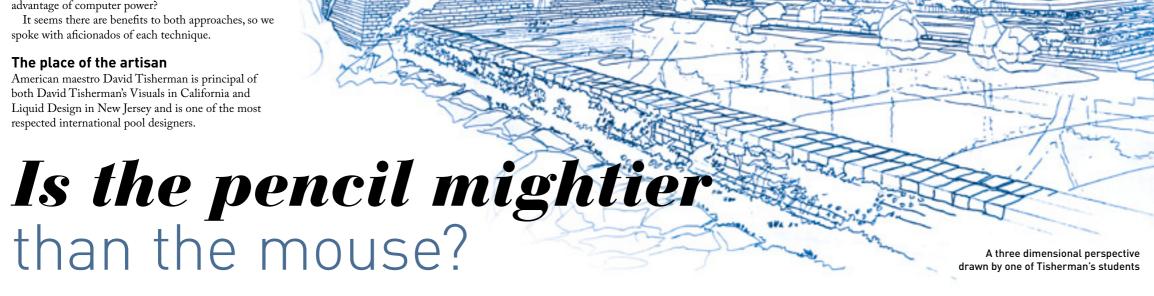
feature

hen designing a swimming pool and garden, what is the best method to choose: the age-old art of running pencil along paper, or a modern digital system taking advantage of computer power?

It seems there are benefits to both approaches, so we spoke with aficionados of each technique.

The place of the artisan

American maestro David Tisherman is principal of both David Tisherman's Visuals in California and Liquid Design in New Jersey and is one of the most respected international pool designers.



He is a fervent believer in the power of artistry and in raising the bar for swimming pool design. He has recently set up the Art of Water – an artistic resource and training centre for swimming pool designers and builders.

Tisherman is well known to Australian audiences. As well as hosting seminars on Understanding the Elements of Renovation at SPLASH! on the Gold Coast in 2010, he also ran a series of workshops where he taught drawing and design for pool builders.

"It's not a question of which system or presentation is better," he says. "It's a question of what should be used, how it should be used and when. Each skill can be used to maximise your presentation and each has its downfalls."

He says that if you do have both skills, it is then up to how you stand on the presentation ladder and how good your presentation is.

Drawing is a skill that has been used to communicate ideas throughout time. The word artist applies to those who can convey meaning through images, and they tend to hold an esteemed place in our society. Artisans, on the other hand, tend to use artistic skills to craft more useful items.

Pool builders who use a high level of creative skill in their constructions could be classified as artisans. These skills can also be exhibited in their hand-drawn plans.

Tisherman says that a drawing skill is often associated with the word "creative". However, he fears that the majority of pool builders currently in the industry are not exercising much creativity.

"Recently a new word has entered the presentation arena. 'Geek'. This is not a bad term, it just denotes someone who works with a computer. The difference between artist and geek is that one needs training in how to work a computer, and the other is trained in how a work with a pencil," he says.

"Let's take the normal scenario of client and a person who is selling a pool: the presentation. Both presentations are in colour and both have advantages and disadvantages.

"The computer can create images, but at the level that the pool industry presents, those images look like a cartoon. You buy a program and usually pay a fee per month. The computer draws the pool and surrounding landscape and you bring the presentation to the client. You can turn the pool and view it from many angles, change the time of day or even change the materials associated with the construction with the touch of a button.

"But again, at the level that the pool industry uses these programs, you still have a cartoon."

Tisherman says that after mastering the most simple software, pool builders might progress to something like Google Sketch-Up.

"It's free and if presented properly and learned well, your presentations can take a giant leap in a positive direction. This program is much more professional and your clients will be more than pleased with the presentation."

But he says that the drawback is that not all of this work is done in front of the client, and the actual presentation can appear flat.

"The human factor, that artistic approach, is replaced by a machine. The soft, rich lines and possibly colour are gone – or never existed. The presentation is 'cold' to say the least. If there is a detail that needs to be discussed at the presentation, the time required to manufacture the drawing is not a positive."

He says that while anyone can use the basic programs, each presentation from each individual presenting tends to look the same.

"The rich tones and flavour brought to the client with hand drawn presentations are special. The first statement from the client usually is: 'Did you do this?'That now places you in that lofty rung of the ladder called Artist, and your presentation takes on an entirely different look to the client."

Tisherman believes that if your presentation can include a combination of hand-drawn images and mechanical drawings, then you have the best of both worlds.

"When presenting in front of a client, there is nothing more creative or more interesting than having the presenter conjure up, in a few moments, the changes to the drawing or a clarification to

"These thumbnails are also invaluable on a construction site. You can't really take a computer out and clarify a detail in the field. That just takes too long. I can't tell you how many images I have drawn on a cardboard box or a napkin to illustrate a point. In addition, the rich hand drawn image, with variations in tone, is a simple trick – but not

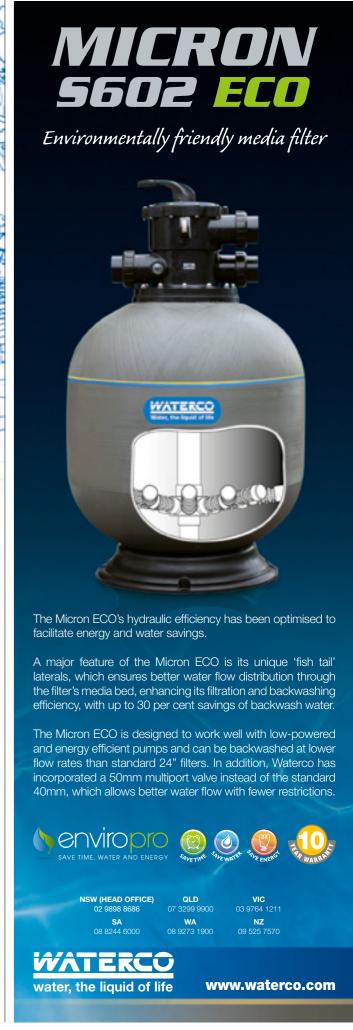
Tisherman says that each method has its pros and cons. He believes hand drawn images are best for the presentation, but computer drawings can be better for the technical drawings.

"My work is hand drawn. However, after the presentation, all the construction drawings and multiple design details are done by computer. This is faster and changes can be done with simple strikes on a key-pad.

"Remember that the key is the presentation. If you were a client, which type of format would be most proud of? Hand drawn presentations are usually preferred by the client, but it takes schooling to produce these wonderful drawings.

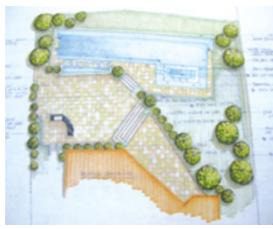
"These hand drawn presentations, if used in conjunction with mechanical presentations creates the best of both worlds."

Tisherman supplied some pencil drawings for this article, but as he presents his finished artworks to his clients, he didn't have any three-dimensional colour perspectives on hand. He says that some of his clients are so taken with the artwork that they actually frame it and hang it on the wall.



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Left: A completed David Tisherman garden and pool Above: A colour plan of a Tisherman project

The third dimension

Nevada-based Noah Nehlich is the founder of Structure Studios, supplier of probably the best known online 3D design software for the swimming pool industry, Pool Studio, as well as VizTerra 3D landscaping software.

To use his software, users pay a monthly fee and have access to all the image databases and all updates. He began his company from scratch and in true "geek" fashion, started it in his own bedroom. He says it has now grown to the point where it is used more than 10,000 times each day.

Nehlich says that one of the advantages of his software is that it overcomes the trouble some people have in visualising a project from a traditional 2D hand drawing.

"People can't really understand a birds-eye view of a project," he says. "With 3D software, clients can walk around and explore a future project just like they would in real life."

He says that because it helps them experience what the project will be like, it can be a useful selling tool.

"When clients can truly understand what they are buying, they are willing to decide sooner, invest more money, and will be happier with the final product."

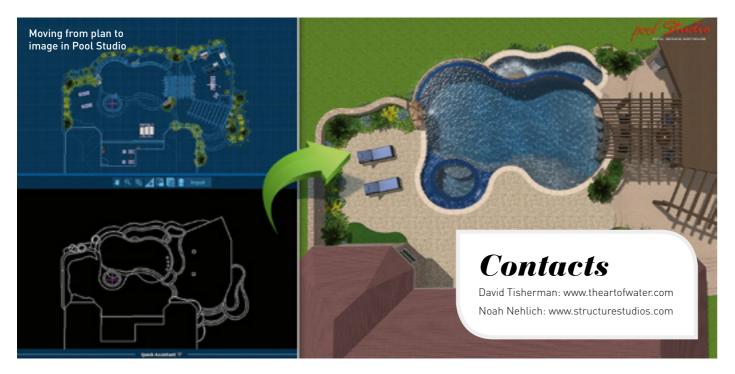
Nehlich says that Pool Studio members close more leads and sell more addons because of the software. He says the advantages of the software include:

- It offers flexibility as it is a complete software solution from initial concept to construction.
- Software is cheaper and more environmentally friendly. Rather than wasting reams of paper drafting modifications, everything is stored on
- Hand drafting consumes hours more human power, not to mention the weight and cost of large boards, paper, templates and a drafting machine.
- Software is more reliable and accurate.

Pool Studio dimensions are calculated accurately and automatically.

- · Software is faster. For example, template objects still need to be traced by hand on the board, but they can be inserted, scaled and positioned by just a few mouse clicks.
- Changes and modifications to existing projects can happen instantly.
- · Software makes team development easier. The same project can be referenced and changed by an entire department.

There are advantages to both systems. But what seems clear is that whichever system is chosen, the importance of the presentation is paramount – and a beautiful visual element can greatly enhance the prospect of a sale, and result in greater enjoyment for the client before, during and after construction. ■





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See-through

triking architecture needs a focal point. And on occasion, the focus will be on the swimming pool. But rarely will a swimming pool take such centre stage as in this riverside Brisbane residence by Arkhefield.

Set high on a concrete pedestal, the defining feature of the residence is the body of suspended water, glowing in the evening, shimmering in the daylight.

What makes the effect possible is the acrylic pool wall, enabling the pool to become see-through and the water to become a crowning feature of the home.

The acrylic panel was erected by Aquatonic, designers, suppliers and installers of acrylic panels for the building industry – including the swimming pool industry.

Aquatonic's Ben Jepp, who handled this job with his business partner Marco Giaroli, says this particular project was a joy to work with because it was completely formed.

"Hutchinson's Builders built the house and the pool," he says. "They formed the concrete as part of the works and the contractor for the shell of the pool was a concrete trade. It was a fantastic substrate to work with because it was accurate as opposed to a sprayed shell. It was formed and a beautiful job. Very square, not bony at all."

The tidy shell made for a clean and quick job for Aquatonic. The panel is three metres tall and 1.9 metres wide, with a 1.7 metre visible width because of the concrete rebate.

"We used a 50mm thick German acrylic panel. It was craned in with a Franna. That's a crane that doesn't have a lot of precision, so we were nervous getting it in. Manoeuvring it was quite tricky, as there's a lid over the pool, but it went in well in the end," says Jepp.

Giaroli adds that they always use acrylic, not glass. "It's clearer than glass and easier to work with," he says. "And it has a similar refractive index to water, so it works perfectly with swimming pools.

"It's as clear or even clearer than water so it doesn't distort the colour. And because the refractive index is almost the same as water, the panel virtually disappears when seen from outside.

"It looks great and creates an amazing effect."

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Acrylic pool wall

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Indonesia in a factory owned and managed by the German owners. Suited to hotels, spas and residences

- B. Kane Jensen from architectural tile company, Living Tiles, in front of a selection of Laminam tiles, the world's largest and thinnest tile at 1000mm x 3000mm but only 3.5mm thick. They also have an amazing porosity of less than 0.05 per cent. For more on porosity, turn to the landscaping feature on page 54
- C. Mosarte's Leone marine grade waterproof outdoor furniture, including some amazingly comfortable and durable ottomans in faderesistant colourful coverings
- D. Mosarte designer pots and chairs made quite an impact at the show. The chair seen here is made from lightweight fibrous cement. For more on this chair go to the product section on page 88
- E. This funky table was part of the young designers showcase. Not suitable for outdoors, but too colourful to ignore
- F. Lisa Carrick of Enjoy Lighting with her selection of flameless candles. They come in a wide range and because they're powered by tiny LEDs they can't blow out; but as they're made from wax, they're absolutely believable as real candles. They are ideal for outdoors, especially poolside. and Lisa is looking for distributors. Turn to page 18 for a chance to win some of these amazing candles
- G. Cinajus travertine imported from Turkey. Peter Zahn says the travertine is low maintenance and salt resistant. He says there is also some cheaper travertine coming from the Middle East, which may have a lot more holes and variation in colour. For more on travertine and other paving materials, go to the landscaping feature on page 54



Highlights from DesignEx











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Speeding up pool estimations

ince 1968, Wright Pools has been designing and constructing concrete in-ground swimming pools for family homes across the greater Sydney area.

The company also works with leading architects and construction organisations to create indoor and outdoor pools and water features for apartment blocks, health clubs, holiday resorts, and prestige corporate and government projects throughout New South Wales.

Doug Wright, Managing Director of Wright Pools, estimates he deals with anywhere between 70 and 120 projects each year.

"We could get a commercial job worth \$500,000 one month and another worth \$1 million the next. Every job is different in size, complexity and in the resources required," he says.

To carry out the design and construction, Wright employs 10 permanent staff, the majority of whom are focused on site works. Basic accounting tasks are managed internally and at the end of each year, the books are sent to a professional accountant for review and taxation purposes.

Getting the costings rights

One of the critical tasks when preparing for any new project is the process of estimation. Wright says that pool construction involves many variables including project management, subcontractor, material, labour and equipment costs. All need to be calculated as accurately as possible when creating an estimate to present to a client.

For many years, Wright prepared the company's estimates with the help of Microsoft Excel spreadsheets. Wrights Pools used premium materials to take advantage of this amazing location at Berowra

