

# Profile



From Pink Floyd to the London 2012 Olympic ceremonies, design studio Atelier One has carved a niche providing engineering for events, alongside experimental buildings and modern art. Jackie Whitelaw talks to the structural engineers who head the team – Neil Thomas and Aran Chadwick.

**Design studio Atelier One** is really a ‘Two’ in terms of the creative engineering minds leading the company. Founder Neil Thomas and his business partner, Aran Chadwick, describe themselves as interchangeable; their designs and ideas so in tune with one another that clients see and feel no difference in outcome, ingenuity or responsiveness to their demands.

There is a slight difference in style though. As architect and RIBA Royal Gold Medallist Peter Cook writes in the foreword to a beautiful book celebrating the practice’s first 20 years in business: “Neil Thomas is a brilliant, crazy, impetuous and genuinely lateral-thinking character. Often bypassing the step-by-step build-up of a logical solution to a problem with flashes of inspiration. Yet the flashes always seem to coalesce into a comprehensive idea”.

Of Chadwick he writes of him being “in his own right a pretty cool dude”. Cook continues: “Ask anyone who values the ability to see into the problems of a buildable project and then enjoy the gentle art of sorting it out.”

Thomas puts it another way: “We’re a Morecambe and Wise. But I’m Eric.”

Chadwick laughs when he hears this and suggests that, perhaps more accurately, Thomas is the comedy duo rolled into one all on his own.

They have worked together since 1991, with Chadwick, 48, starting to work occasionally with Thomas, 56, just two years after the elder set up in practice aged 30 in 1989. Chadwick became a full business partner in Atelier One in 1996. Over the years the two men and their 20-strong team have turned out a series of stunning structural engineering works, with many of the projects taking the discipline into the realms of performance and art.

## Design studio

Atelier One’s first big project was the

conversion of a 1930s former laboratory building in North London into the Greenpeace UK Headquarters with Feilden Clegg. “That was amazing. As a client they were prepared to try new things; it wasn’t about the square footage. We are still members now,” Thomas says.

Other projects range from artist Rachel Whiteread’s ground-breaking ‘House’ installation – where a Victorian dwelling was sprayed with concrete to create a negative image of a family home – to Channel 4’s ‘Big 4’ logo sculpture, the Baltic Centre for Contemporary Art in Gateshead, Singapore Arts Centre, and Paddington Footbridge in London. A major client was architect Mark Fisher who worked with Atelier One to design stage sets for bands like Pink Floyd, U2 and the Rolling Stones.

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2012 was arguably Atelier One’s highpoint so far. Not only was the firm engineer of the World Architecture Festival Building of the Year – Gardens by the Bay in Singapore – but it was engineer for the London 2012 Olympic and Paralympic opening and closing ceremonies. The surreal vision of scores of flying Mary Poppins or the extraordinary pop-up mill chimneys that appeared in the Olympic Stadium during the opening show all happened thanks to the abilities of the practice.

But if you ask Thomas and Chadwick which of their schemes is their favourite, they both, separately, give the same answer: “They are all our favourites; each is special to us.”

The culture is clearly to have fun while pushing the boundaries of engineering. “And it’s a ‘yes’ culture,” Thomas says. “Well, I always say yes and Aran never says no. Artist Mark Quinn asked us to make a rainbow inside a shipbuilding shed. We had to go back to basic physics but we did that. You can do all sorts of things, and inexpensively, if you just think clever. Isn’t that why we joined this world?”

Chadwick says the special aspect of Atelier One is “that we don’t just support design or describe ourselves as design-led engineers; we are a design studio in every sense of the word. There is a spirit of innovation and a genuine enthusiasm for solving design issues.”

In terms of the structure of the business, there are two other people to mention who help create a stable, four-cornered organisation: Jenny Attwood on finance and Cecilia Trollby on bids. Jenny works in Brighton, Cecilia in New York, Aran in the London office and Neil in Manchester. They have no problem with the concept of remote, collaborative working. To underline this, Dicky Bentley, who has done their drawings for years, works from Cornwall and hasn’t been seen in town for five years.

Within the practice there is clearly an innate understanding of the style of work and way of working that needs no formal structure or hierarchy.

So, how did the business come about?



## Thomas

Neil Thomas can remember the first time he realised he wanted to be an engineer. “My father was an engineer and ran Rugeley Power

Station in the Midlands. It had one of the biggest dry cooling towers of its time and my dad took me inside. I was about 11 or 12 and as I was standing there, there were birds

flying round my head and I realised that they were following the air currents. From that moment I wanted to be an engineer.”

He went to study civil engineering at Leeds University, but swiftly switched to the architectural engineering course. Thomas had grown up in the 1970s with David Bowie as a big influence and he'd always loved painting, ballet and the arts generally.

On graduating he looked for a job and, having been following the work of architects such as Kenzo Tange, went for advice to a business which understood how to work with them – BuroHappold. The company had opened an office in Leeds and Thomas went for a chat with the man in charge, John Reid.

He then went for interviews with various other businesses, walking out from one when he was told that graduates were not allowed on the partners' floor of the office building. “I decided I wanted to work for BuroHappold and haunted John. He said they had no vacancies; I said I'd make the coffee. In the end he got fed up with me and gave me a job.

“I went to Bath [where BuroHappold is headquartered] for a three-month induction and stayed for six years.

“I loved the smell of the place; it was a town house on Gay Street with coir carpet and fresh coffee and the most amazing work. When I joined there were 25 people, nine of them partners, and I worked with all of those great engineers – Ted Happold, Mike Dixon, and in particular Ian Liddell [now best known as designer of the Millennium Dome].”

He and Liddell had a volatile relationship as one genius engineer attempted to train and develop another maverick character.

Liddell taught Thomas well. “Ian is the cleverest man I have ever met – when I joined he'd just checked the Calgary Saddledome by hand. Working with him has left me with an understanding that if you don't feel engineering and understand how structures work, then stop. This computer thing, if you put rubbish in you get rubbish out; you can't think the computer will sort it out. I learned Calgary style; I only do hand calculations now.”

Like most people of his generation, Thomas has staff who are ten times better at the computer work than he is. “My role is to guide and look forward, but I know if something doesn't look right.”

What Thomas learned from Ted Happold was how to be an engineer who clients wanted to work with. “Ted was very friendly, cheery, happy and relaxed and people take to that. That's how I like to think I am too.”

During his time at BuroHappold, Thomas wanted to get some experience abroad and was sent out to Kuwait to build concrete buildings (and also learn to waterski). “Coming back, I got itchy feet. Happold was growing and I'd loved the small office – to this day at Atelier One we are never bigger than 18–20 people – so I looked around.

“I went for an interview with Anthony Hunt Associates and Tony Hunt and David Hemmings [the partners] came to see me. I found out later they wanted to have a look at my ponytail. It was a bit of a thing in the 1980s for those that don't know. I'm a bit embarrassed about it now!

“I was offered the job, started in Cirencester and then went to London. Tony introduced me to a host of architects

– Richard Rogers, Mike Hopkins, Norman Foster etc. – he's so generous.”

Hunt also drew Thomas into a separate company he had set up – Hunt Projects – which shared office space with architects Jan Kaplický and Amanda Levete. And a key memory from those days is of a serious party with some eminent engineers of the day, held after some work for Bollinger had resulted in Hunt Projects being paid in champagne. (This was the 1980s, remember.) “I can recall Peter Rice, Frank Newby, James Sutherland and Tony were all there, and in the morning my brother was asleep on the boardroom table when Amanda walked in.”

They were wild, fun days, but all good things come to an end, and when the firm was sold to YRM, Thomas had to make a decision about his future career.

“I was the only one who voted against the deal, so when it went through, I thought I'd better vote with my feet.”

He was given some desk space in Rab Bennetts' office and set out on his own, with a promise to himself only to work on interesting projects.



### Chadwick

Chadwick first got in touch with Thomas at Atelier One because he was interested in getting involved in more experimental

structures and the fledgling firm was building a reputation in that field.

He, too, had studied civil engineering at Leeds, influenced partly by the fact



that his father was a civil engineer. He'd gone on to join the University of California, Berkeley's structural engineering, materials and mechanics programme. "Then, after a couple of years as a graduate engineer in Manchester, I decided I needed to understand more about architecture," he says. "When I discussed this at the Manchester School of Architecture they suggested I would learn more teaching and they offered me a post.

"As well as teaching structures, I worked with a lot of the postgraduate students on their thesis design projects and it was a great way to see how a design can evolve and how an engineer could contribute to this process." As an aside for anyone interested in how the Fates conspire, Chadwick taught Thomas's future wife, Sonia Pabla-Thomas.

Chadwick was also one of the early adopters of 3D modelling, learning 3D CAD when it was in its infancy. "And I entered an international design competition run by The Institution of Structural Engineers and IABSE and, with great excitement, I was joint winner," he says.

"From 1991 I started working with Atelier One, originally for a couple of months looking at demountable structures, but I gradually

began getting more and more involved in projects to the point where I had little time for anything else, literally!"

### Influences

In terms of major influences on their careers, Thomas names Mark Fisher as the prime one for him. The stage designer died in 2013 and Thomas finds his loss hard to take. "He was a great man and very good to me. I was having a rough time in the 1990s, I'd separated from my then partner and he said go out to San Francisco, hang out with Pink Floyd for three months on their tour for which we'd helped design the stage. He never mentioned why I should go, just knew that I needed to."

For Chadwick there are two, apart from Thomas himself. "Ben Gerwick, one of my professors at Berkeley, was a real inspiration. Firstly, he was an inventor/engineer who was respected worldwide for his ideas and, secondly, he was extremely generous with his time and advice and that really struck a chord with me that actually engineers enjoy discussing engineering. To this day, if there's something I don't know, I'll find out who does and ask them.

"And Joe Jessop was the head of the

School of Architecture in Manchester and really got me started in looking at the creative possibilities in engineering and the importance of it."

### The future

So, what's next for the Atelier One practice? "There's a lovely big glass roof in Melbourne and an exciting Secret Cinema scheme [in the UK] in June," Chadwick says. "And after working on the 2014 Winter Olympic ceremonies for Sochi we're engineer for the ceremonies at the first ever European Games in Baku, Azerbaijan," Thomas reports.

Currently, Thomas and Chadwick are negotiating teaching a course at Massachusetts Institute of Technology alongside Skylar Tibbits of the Self-Assembly Lab. "The future is very exciting," Thomas says.

### Reference

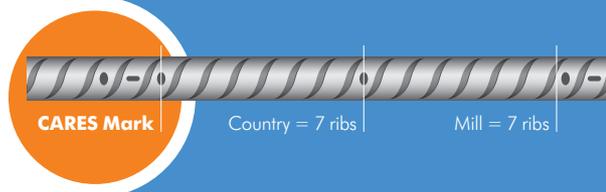
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