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Profile

**Opinion** Kamran Moazami

Kamran Moazami is the designer of the "greatest building in the world" – The Shard – but he also runs WSP's UK structures division. He talks to Jackie Whitelaw about the power of a global community and how great buildings are good business.

#### Kamran Moazami, designer of London's

Shard, the planned Nakheel Tower in Dubai and 7 World Trade Center in New York, is by any measure a world-beating structural engineer. But while you'd expect his eyes to be on the tantalising challenges of adding new tall structures to city skylines around the world – and particularly London, which is where he is based – that is not all he's thinking about.

Moazami is a businessman as well as a designer and his mind is currently very much engaged in the new opportunities for his business at WSP, and the benefits that can accrue from the recent merger with consultant Parsons Brinckerhoff.

Moazami is WSP's head of discipline for structures, responsible for over 400 engineers in the UK and now very much aware that the addition of another worldclass operation to the stable means there is knowledge and experience to be mined that will add to the skills his group can offer.

WSP bought Parsons Brinckerhoff from Balfour Beatty in September 2014 for £820M, adding 13 500 staff to the WSP organisation, creating a combined business of 32 000 employees and net annual revenues of £2.3BN. It is now one of the largest global professional services firms in the world.

The merger is starting to take shape – WSP's former UK Managing Director Mark Naysmith was announced as COO and managing director of property, transport and infrastructure for the combined UK organisation in February, and over the next few months the former WSP and Parsons Brinckerhoff specialist teams will be establishing a new way of working together as one company.

While the UK people establish new structures and operating procedures, it is the global opportunity that is exciting Moazami.

"I have worked all over the world and know how much you can gain in terms of advancing knowledge when you bring people together," he says. "We have a major, major opportunity to work as a truly global company using skills from China, the USA, India, South Africa, Canada, everywhere.

"You are much stronger working in a community of great people and if you have access to knowledge from all parts of the world, that is a big strength to capture and it is most powerful."

But it takes effort to create unity, Moazami recognises. "Technology helps a lot, along with willingness and enthusiasm to work together. But people also have a tendency to want to grow their own cost centres and their own regions. As the business grows, we have to change that and learn to find ways to share work and knowledge."

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He is excited that early on in the merger there is now a technology strategy group which meets via video conference once a month. People from all over the world are invited and explain what they do – "New York was so keen they woke up at 4am for the first one," Moazami says. "It is exciting to find we have fantastic marine engineers in South Africa and great expertise in stadia across the globe – as a business we have 30 contracts for some of the world's largest projects, including the biggest snow dome in Egypt."

He recognises that integration takes time, however, and speaks from experience. Moazami was working for Cantor Seinuk when the practice was taken over by WSP in 2000, something he actively embraced, helped by WSP director Ron Slade who came to his flat and invited the UK Cantor Seinuk team to join the structural engineers at the WSP office virtually from day one.

"It took time to gradually get to know one another and learn. New is always different, the comfort zone is always the easier place to be. But you have to have the instinctive intelligence to know that together you do better. It's always better.

"One of my mentors told me cream always rises to the top, so you should never worry about change!" That confidence and positivity are attitudes he actively encourages at WSP.

Moazami himself is from all over – he was born in Iran, went to New York to study engineering at Columbia University in the late 1970s and stayed to continue his studies when the Shah was overthrown in Iran. "I was on my way home but the airport was shut, so I went straight back to Columbia and registered for a PhD. One of my professors said that for every year you do it, you get a year's work permit, so I had two years not to worry. I stayed, and became a US citizen."

He joined Cantor Seinuk and fell in love with tall buildings – in his career he has designed over 60 buildings at least 30 storeys high all over the globe. Moazami came to London to open a branch of the business in 1989 and he has spent the majority of his time in the UK capital ever since. All those experiences mean he feels very much a citizen of the world rather than a particular country. "I am a human, that's simply it. If you just think of yourself as human and regard all people as citizens then all issues go away."

He is, of course, most well-known now for his work as lead structural engineer on London's Shard. And it is his favourite of all his designs so far. "It is an awesome building," he says. "It is beautiful from each angle, different from each angle. And it is the only building I know that every architect praises. It is the greatest building in the world as far as I am concerned; Renzo Piano is a great architect and he did a fantastic job.



## **Favourite projects**



### WSP building projects: The Shard, London

"This is because of its very unique architectural and structural form. The building is beautiful and seen everywhere on the London skyline."



# **432 Park Avenue, New York** "One of the very few structural punchedwall systems with white concrete, and one of the most slender buildings in the world."

Freedom Tower, New York "Sign of strength and collaboration of



Barclays Bank HQ, Canary Wharf "The first post-9/11 building designed for progressive collapse and enhanced robustness."

structure and architecture forming one of

the most elegant buildings for height."

#### One he wishes he could have worked on:

Chrysler Building, New York "Elegant, beautiful and tall. Designed when the use of computers wasn't common and mostly designed using hand calculations."

does not have a good reputation, the job is somewhere where they don't pay on time, or it takes too long to get approvals."

Recession was an eye-opener in terms of which are the good and bad clients and in terms of how much harm the consulting industry does to itself. "The biggest issue is price competition. We as engineers hurt each other, but you had to get involved. But what engineers bring to a project is undervalued. We need to explain more clearly to clients that a higher fee will give more intellectual involvement in a project and will result in a better, more cost-efficient structure.

"On our major projects we can negotiate our fees because the clients realise that an engineering cost of 3% of project value can produce a minimum 10% saving overall, which is a massive benefit. But often big corporations go on a competitive bid and select by lowest fee, and that hits their business if there is not adequate time in that fee to do the engineering."

Every business, including that of a structural engineer, is there to make money, he says. "So you need to be selective. In bad times you can't so much, but I think we have a good few years ahead of us now, so we can. There is only one New York and there is only one London, everyone wants to be present in both. The cities can't sprawl, so the most sustainable option is to go vertical."

Clustering the structures together helps gain acceptability from the public, and Moazami says that in the capital the buildings fit with each other. "The buildings still read with each other, the composition of elements read with each other and have to be compatible and tell a story. It is going to be exciting to play a part in developing that story."

"For us, it was a very difficult project. We came in and changed the composition of the building using hybrid construction to give a 310m structure the elegance and the cost economy to sit on a small but expensive site on the South Bank, but give maximum usable area.

"Beauty was built in the recession – we showed it could be done. We always said The Shard would stimulate the economy, and so it has!"

It has also, it has to be said, stimulated the structures business in the UK. "Our volume of work has increased and increased because of our reputation – not just with The Shard, but because we can help clients save money and make better buildings. "Turnover has gone up from £26M to £34M over the last year and staff have increased an astonishing 33%, rising from 300 to 400 people in just 12 months.

Exciting, well-produced projects attract personnel and clients, it seems. "When you do a great job, clients come to you and come back to you. It is a cascading, evolving business. And when you do challenging projects, it attracts talent, talent that stays," Moazami says. "Taking care of our people is our number one value and most people here at senior level have been working with me for 10 years, a lot for 15."

Having a clamour of clients wanting your services is an interesting position to be in, particularly after years of coping in recession. "We diversified in the recession so we weren't only doing tall buildings, but South Glasgow University Hospital and Crossrail's Bond Street Station. That's carrying on – we have the supreme challenge of London Bridge Station now. Anything with a property aspect, that is ours."

The problem becomes which projects to choose. "We have a 'go', 'no go' process and if it is a repeat client, an exciting job like a station or an awesome scheme in London or Dubai, say, we do it. We say no if the client