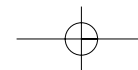


collaboration

panopticon, burnley

Tubular bells

The Singing Ringing Tree lookout in East Lancashire, designed by Tonkin Liu, would still be a paper project if it weren't for the commitment of a multidisciplinary group of enthusiasts. **By Jes Fernie. Photographs: Claire Curtice**

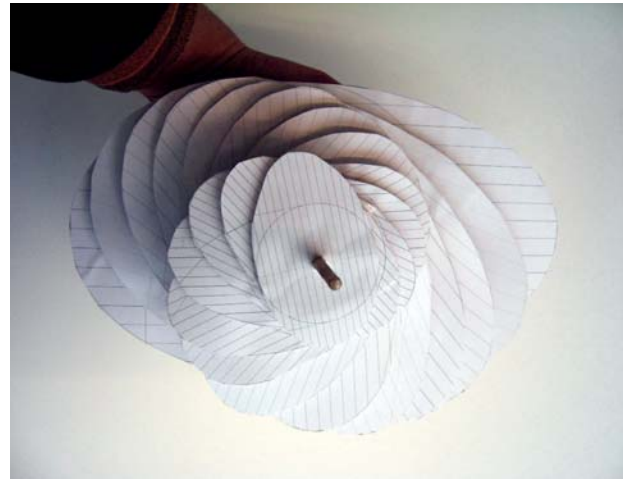




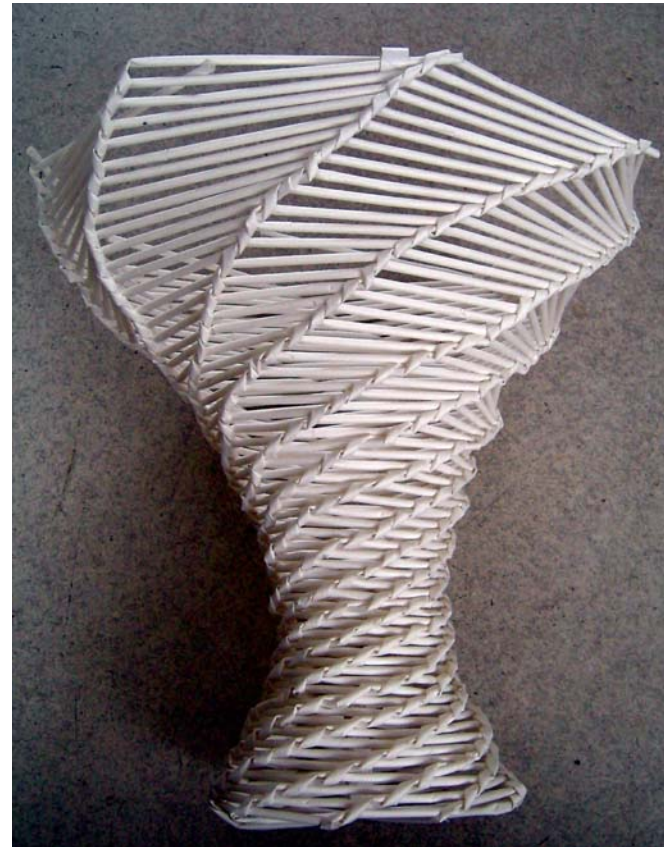
From left: architect Mike Tonkin, engineer Jane Wernick, project engineer Kate Purver and fabricator James Shearer.

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Early models of the Singing Ringing Tree.



collaboration

panopticon, burnley

Jeremy Bentham's concept for a panopticon, designed in the late 18th century, used the all-encompassing view to make prisons more efficient. All the cells were observable from a central core, and because the prisoners would never know whether they were being watched or not, the theory was that they would police themselves through fear.

But a panopticon can also be a benign, even beautiful, device, as is evident in a series of landmark viewing platforms dotted around East Lancashire Regional Park. The first two are at Blackburn and Pendle while the fourth, at Rossendale, is due for completion this year. The third, at Burnley, was completed late last year to a design by London-based architect Tonkin Liu, run by Anna Liu and Mike Tonkin. The Singing Ringing Tree, as it is called, channels the wind through a twisted stack of horizontal pipes, producing a haunting whistle in the lonely, exposed site on the moors.

Like many practices before it, Tonkin Liu has capitalised on the success of a small-scale, financially challenging, experimental project. The publicity and awards the Singing Ringing Tree received (including an RIBA national

award) served as a foundation upon which to build a growing practice. But while a lot has been made of the form and properties of the structure, not much has been said of the extraordinary set of relationships that saw the project to fruition.

The first of these was the most serendipitous. On the school run, Anna Liu asked another parent (whom she was aware was a sound artist) if he knew of anyone who could help her make pipes sing. Dan Knight's response was: 'Well, only me.' Thus began an intense process of research, discussions and trials for Knight and Tonkin Liu. This provided the conceptual framework for the subsequent collaborations with structural engineer Jane Wernick and fabricator Mike Smith.

Working on an outdoor installation was new to Knight, whose sculptural work had hitherto been between four walls. He began his research by contacting a professor of engineering in Canada who had recently worked with an artist on a pipe-based sound sculpture. The conditions in which both the Singing Ringing Tree and the Canadian sculpture were made were similar: the relatively small wind force in ▶

London and Vancouver made it hard to reproduce the wind surges typical of the intended locations. Knight and Tonkin Liu adopted the Canadians' solution of driving hell for leather with a tube of carefully slit piping protruding from the car window. This created the wind force necessary for assessing the pipes' whistling quality.

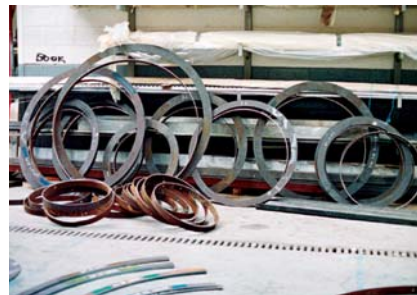
They initially tried using scaffolding pipes to create the desired sound, but found they were too thin and too heavy. In the struggle to create a decent sound, the team were in danger of losing sight of the aesthetics. 'Dan acted as a critic at this point, saying "Don't worry about the sound now – you've got to make it look good",' says Anna Liu. This applied to both far and near views, as one of the criteria for the piece was that it had to be visible from Burnley's temple of consumerism (Sainsbury's).

Initially Tonkin Liu were thinking of a symmetrical shape, but Knight persuaded them to work with a more organic, tree-like form. 'I love the incongruity of it – the fact that it is made of steel and is incredibly strong, but looks like it is being pushed by the wind,' says Knight.

Once the concept and general feel of the tree was arrived at, Tonkin Liu turned to structural engineer Jane Wernick to make it work. She had already collaborated with architects on arts-related projects, including Zaha Hadid on the Ordrupgaard Museum in Denmark and David Chipperfield on the Figge Museum in the USA. This meant she was able to approach the project as an intellectual challenge – the fees for all involved were tiny. Wernick enjoys working on projects that aren't buildings: 'They often take you right back to first principles – the structure is what you see and conceptual clarity becomes very important. This entails close collaboration and agreement from everyone on the design team,' she says.

After a protracted silence on the part of the client, when it was unclear whether the project would go ahead, Wernick and project engineer Kate Purver devised a system whereby 25 of the hundred or so pipes that make up the tree would be 'cut to sing' and positioned on steel rings in such a way as to make the most of the location and the seasons on the site. 'When Anna and Mike first came to us, they bought a model made of paper straws stacked on top of each other. It's not possible to weld pipes onto a layer below, so we devised a spiral axis based around two rings with tubes bolted on horizontally,' says Wernick. The tree was too heavy and too big to be made in London and transported to Burnley, so Wernick and Purver experimented with ways it could be fabricated and bolted together on site in order to spread the load evenly and eliminate knife edges.

The third and perhaps most significant relationship in the making of Singing Ringing Tree was with Mike Smith, fabricator of choice for any self-respecting artist (he has worked with three of this year's four Turner Prize nominees). Smith was appointed not only to make the tree, but to act as design and build contrac-



A quarter of the 100 or so pipes that make up the Singing Ringing Tree were 'cut to sing', and positioned to make the most of the windswept site above Burnley.

tor for a risk-averse Burnley council. 'We had a great working relationship with James Shearer (from Mike's studio) and Mike; they really believed it would work and were totally committed to the project,' says Liu, who at one point was resigned to the tree remaining a myth.

Each of the three collaborations Tonkin Liu formed during the making of Singing Ringing Tree overlapped with each other. Wernick met Knight to discuss how the pipes might work and get an idea of the conceptual thrust of the scheme, and with Smith to liaise on issues regarding on-site fabrication. Smith, in turn, executed beautifully detailed drawings for the contractor in Burnley to refer to when constructing the tree on site.

Tonkin Liu also nurtured a close working relationship with Burnley Borough Council's architect Andrew Rolfe and the local contractor who prepared the foundations. 'You always need someone on the ground to make a project happen. We had to trust in the council and the contractors that they would be true to the plans. It was a risk for them too and it paid off,' says Liu.

Tonkin Liu's commitment to working in the public realm, encouraging close collaborations between community groups and councils, meant this project was ideologically, as well as personally and creatively, driven. Without this commitment – to collaboration, experimentation and political ideology – the song of Burnley's panopticon might never have been heard. ■