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The story of The Meccano Bridge

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The Meccano Bridge did not start out life as a meccano bridge. In fact it didn't even start out as a bridge – that all came later. Bolton at Home, the housing agency for Bolton, had commissioned me to make an artwork for Little Lever, a small town in the Bolton area. A new housing development there had provided funds for the artwork through a Section 106 agreement, which is a mechanism to make a development proposal acceptable in planning terms and, as such, often is used to fund public art at or near the site in question.

The brief was very wide; it asked me to consult with local people and then create an appropriate artwork that would somehow enhance the town. My first visits left me uninspired; the town centre seemed to have long lost its soul. Empty shops dominated. One local café owner tried to persuade me that I should paint murals on the shutters of the empty shops. So sure that this would make a difference, he seemed unable to hear my argument that it would only draw attention to the stagnant economy of the town and that the sight of murals in deserted shopping centres, though worthy, was often a clear sign of deprivation. There was an irony in his idea in that, in the unlikely event of the murals sparking off some regeneration, the murals themselves would disappear during opening times! The café owner was finally very pleased with the outcome and told me that the Meccano Bridge had done a lot for Little Lever. I had found this before – that objectors could very quickly become advocates once they got to know the artist and his strange methodology. The café owner, who had been a

notorious thorn in the side of the council, has now joined them as one of two UKIP councillors for the ward.

My first thoughts were a bit more radical. I wanted to take over one of the shops and use it as a means to create a dialogue with the local residents and visitors. I went on holiday and contemplated all the things this shop could be. From a hammock in the dappled sun of a Provençal olive grove, mind free from normal urban restraints, I conceived an interactive shopping treat for the town through which I would engage all comers with a wide range of activities. I would consult them obliquely, find out about them and then surprise them with a proposal that would somehow be their mirror.

However the shop was not to be. On my return I was confronted with worried councillors. The economic downturn was forcing them to make public spending cuts, and a new artwork in the town centre would be perceived as a waste of public money. Perhaps, they suggested, I would like to do something near the canal, with maybe a heritage theme. The Manchester Bolton & Bury Canal (MBBC) runs around the back of Little Lever, so maybe they thought this could be a public artwork that nobody would notice, thus achieving their aim of not upsetting their public! I like canals, but I felt a bit unsure about the heritage theme. We seem to glorify our industrial past as if the work of previous generations had some proud purpose other than hard exploitation for the profit of others. I could not join in this lie. So I began to think about what would be useful

and universally liked by local people and visitors alike. In order to do this I had to get to know the people.

On quite a few occasions, I have used the making of a temporary public artwork with the direct participation of local people, and this oblique approach seemed right here too. I thought: "We have water, so let's make a boat or rather a sculpture of one". On one long day in the autumn on some trestle tables in a grassy area by a canal basin known as Top o' th' Lodge, local families made a boat sculpture woven from shiny CD's and floated on plastic pipes. We worked hard to complete the sculpture which was ceremoniously floated out into the canal basin the same evening. The glittering vessel shimmered on the water and was, for a short time, the star of a canal that had not seen boats for many years. There is an extraordinary feeling of a group bonding in such projects, working together – any age, any class, any type, the communal effort, pride in the finished work, all prejudices aside, co-operation not competition, equality not hierarchy. It's a perfect situation for the artist to get to know the community, win their trust and understand their situation. It was here that I first met members of the Canal Society who became instrumental in the



Temporary floating artwork.

final outcome of this project, but there would be a few false tangents before our collaboration began.

The boat seemed to be a success, so why not a real boat? I've made boats before but I got quite excited about making a well-crafted boat with the help of a boat maker and the local community. I saw the canal at Little Lever as a linear boating lake. I went to see the headmaster of the local secondary school to suggest it could be the keeper of the boat and that making it might become a cross-curricular project with the school children. Sadly, he didn't seem very interested.

I collected numerous images of community boat-making and sailing from around the world and formed them into a slide presentation for a meeting of local people. I hoped I would raise some enthusiasm for the project, but I was met with fear: fear of drowning! Despite that, in the canal's heyday, more than 50 coal barges passed through each day, the assembled group feared that a boat was likely to result in a drowning. Their trump card was an account of a young person drowning in the canal in the past. For the first time in my life, I didn't even finish the presentation. There would be no boat.

If not a boat, then maybe a bridge. I met with the officer in charge of the Moses Gate Country Park and he agreed with me that a bridge at a narrow section of canal just west of the canal basin would be useful. It would open up the country park and even allow primary schools to visit the park without needing a bus. Once again I felt excited that I could make something of use.

I went to the local Little Lever youth club feeling that involving the youth of the area was the best route to creating that all-important "sense of ownership". Here amongst distractions of loud and large TV's, table tennis and pool we built versions of Leonardo's bridge in various scales. Leonardo Da Vinci designed a friction lock bridge which relied on gravity and had no fixings. My idea was to build a temporary bridge over the canal in this way, as a way of engaging local people in a discussion about the benefits of such a bridge, but the unruly nature of the otherwise



Little Lever Youth Club.

very pleasant kids made this a health and safety nightmare, so we just made the models in the youth club. The youths' 60 second attention span made for slow progress but, to my surprise, they all turned up at the area forum meeting at which I presented ideas for a bridge and made it look like this was a project embedded in the local youth. It was the evening of St. Valentine's Day and so I alluded to the romance of bridges through history. I can honestly say that the talk went down very well and I felt I had the whole community behind the project and was proud to give the young ones an insight into local democracy, but these hopes were later to be dashed at another fatal meeting. In the meantime, I was sketching out ideas for the bridge but, as I wanted to be sure that I had the support of locals, I made a newsletter and delivered it by hand to the streets surrounding the site of the proposed bridge. The newsletter contained an invitation to a meeting at which the proposal would be discussed. I was expecting to be received warmly after the success of the area forum meeting, but none of that audience were present and I was met with aggression from the

"not in my back yard" constituents who felt that a bridge would attract miscreants and undesirables, who would light fires, get drunk and commit acts of depravity on their very doorsteps, lethally disrupting their complacent suburban lives.

Hope dashed again, I wasn't too sure where to go, but in came the cavalry in the form of the MBBC Society. Paul Hindle, its chair, and Steve Dent, working party organiser, suggested another site for a bridge. It was the site of an old wooden horse bridge at the top of the locks which linked the canal to the Manchester arm at Nob End. The wooden bridge had decayed long ago and the locks had perished and been dry for years. They had suggested this site before but I had not been inspired by it, mainly because the canal had no water at this point and so I had felt a bridge to be pointless. However, I hadn't quite grasped the regenerative possibilities. A bridge would allow them to reroute the path; it would give a superb view of the locks and the river valley and at least pave the way for more canal restoration. It was now summer and I went away again to contemplate all these things.

Refreshed, I came back to quite a large on-site meeting with people from Bolton at Home, Bolton Council Engineers and Planning Departments, the Canal and River Trust (CRT) (formerly British Waterways) and the Canal Society. Everyone seemed to think a bridge on this site would be good, although they were quick to point out some obstacles. Some of these were issues relating to planning, conservation, safety, access, heritage and



Ripples Bridge – an earlier design.

wildlife, to say nothing of budget and perhaps the unsaid thing by this band of cross organisational professionals “Why are we letting this crazy artist build a bridge?”

Overwhelmed though I was with this huge weight of bureaucrat energy surrounding me, I had to seize the opportunity to bring order to my chaos, so I asked if I could be given a specified brief with all the limitations, constraints and requirements detailed – a document which could be my guide, my watchdog, the strait jacket through which I would somehow deliver some magic. This was artist trying to beat bureaucrats at their own game. My bid failed. It wasn't the first time. I'd tried this sort of thing before and now knew the general rule is that, when artists try to use the tactics of the bureaucrats, the bureaucrats step sideways and become more like artists. So my answer came from Bolton Council's Bridge Engineer: “No, let's just start work and talk it through together as we go”. I'm not sure they use the same tactics with motorway bridge contractors but I had no choice and so began a tortuous, iterative discourse.

The abutments had been measured, so all I had to do was draw a bridge. The council engineer would check it, do some load calculations and approve it. Then I would arrange to have it fabricated, after which it would be erected on site, opened and then we all would go home. Several hundred drawings later, I still didn't even have a design. The best of my designs were not really impressing people much, least of all me. Paul Hindle had suggested I meet him to have a look at a nearby bridge. The bridge had a utilitarian brutality that would last the test of time but lacked elegance. I didn't like it but I had guessed what Paul was saying. On the way back, he pointed to some serious vandalism to another bridge. I'd got the message.

So the new design would make a feature of being robust. It would make physical strength a virtue. It was around this time when I was thinking of a big strong structure that my computer was stolen, with the hundreds of

drawings for the bridge not backed up; it felt like a relief, a fresh start.

As there was no room to manoeuvre a big crane or lorry at the site, the bridge would have to be constructed there. Parts would be fabricated in a factory, delivered and then bolted together “like meccano”. It's strange how often the words “like meccano” were being used by all of us involved to describe this assembly concept, and how long it took for the obvious to dawn on me: “Not like meccano, but meccano itself, giant meccano”. In a flash the whole concept was there. Scale up meccano by say 10 times, ten times longer, ten times thicker and 1,000 times heavier. Design a bridge using normal meccano to make the model, hand it over to the engineers to check, have the parts made and bolt them together on site with the help of Canal Society volunteers and local people, thus combining community participation with actual construction, and giving local people a functional artwork they would all love because they had built it.

On reflection, it's no surprise to me that the creative process always seems to work this way for me: lots of dead ends, indecision, false leads, half-hearted designs and then, out of the blue, something unexpected and just right. It happens in one glorious illuminating moment and then the rest is just work. I was convinced now that this was right. Meccano is just engineering scaled down. Now we were about to scale it back up again. Having decided on Frank Hornby's construction kit as components for the bridge, developing a design would be easy – just a matter of building a standard truss bridge. There would be no need to embellish the structure: the toy-like curved ends of the meccano multi holed girders, the triangular trunnions, the large nuts and bolts and the meccano colours (red, green, and yellow) would give the bridge distinction. The trick of scale would be the main element of the artwork. I just had to sell the idea to the various stakeholders. So with nostalgic delight I dusted off what meccano I had from childhood and ordered some more from eBay.

I made a couple of bridges and took them along to the engineer's office at Bolton Council. I presented the idea to a group, which included engineers, Canal Society, Bolton at Home and a town councillor. I showed them the work of Claus Oldenburg who is famous for taking small everyday objects and enlarging them to monumental scale for public spaces. I showed them the chunky aesthetic of details in bridge construction. I showed some truss bridges and then, finally, a model Meccano Bridge was unveiled. It had been easy. They all liked it.

I now started "playing" with my meccano set, trying variations on what I had already made. I took these to the Council's Bridge Engineer for discussion; he seemed quite keen on developing the design. I had suggested that I continue to work with meccano at the council's office so that we could have a two way dialogue as designs emerged, but there was no room. So it had to be a forward and backward situation.

The actual design did not take long; the art element was in scaling up meccano so the design could be very standard, the more standard the more the trick of using meccano worked. The



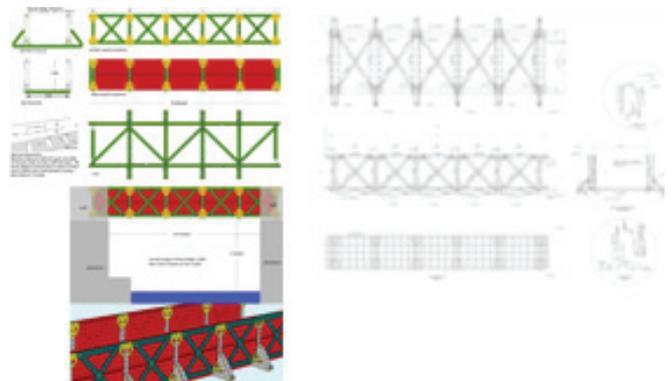
Meccano models

engineer's final design, which was a long time in developing, was very similar to my suggested one. He had broken it into smaller sections which made it easier to erect on site.

I first presented the Meccano Bridge in April and I had hoped that we could be building it during the long warm days of summer, or at least autumn, but by the time the engineers gave approval to start building it was December and very cold for outdoor working. I kept asking if the calculations were done and had no answer. In fact the calculations only arrived with me after the bridge was completed. At one point the engineer tried to re-assure me by saying that one of the women in the office had successfully stood on the model bridge with only minimal deflection. Whilst I suppose this meant the design was strong, I had expected mathematical proof. The process was further complicated by the fact that the Canal and River Trust required us to have two engineers. So we engaged a lecturer in engineering who clearly had no sense of urgency whatsoever.



A Sculpture by Claus Oldenburg showing "tricks of scale"



Artist's design

Engineer's design

One interesting thing that occurred was that, instead of the 5 panels that my design suggested, the engineer suggested it could be reduced to 4, with two halves at either end. This would mean that only 4 panels would be visible (see diagram). It all looked wrong to me but I couldn't say why. At a meeting in the council offices I tried to assert some artistic licence by saying that odd numbers were better. 5 panels looked like a number of panels whereas 4 panels looked like 4: it didn't need to be counted. Also, with 5 there was a central panel which seemed to me to give the structure more poise. Luckily they accepted these ideas but it was only later when I googled "odd numbers in art" that I learned about the odd number rule. It was something I felt instinctively but hadn't ever learned!

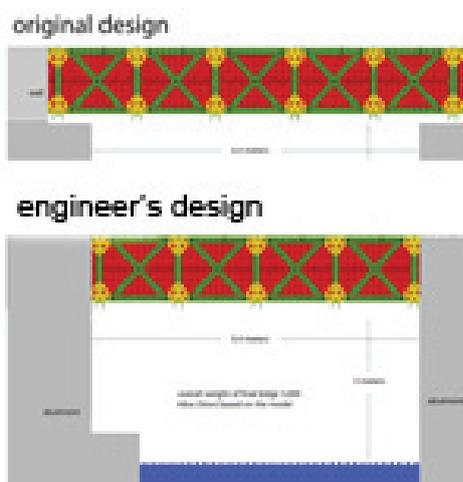
Eventually the go ahead came and I had all the pieces manufactured locally including the giant nuts and bolts. It was agreed that the Canal Society would be the main on-site contractors, not just to build the bridge but also to restore the two abutments. Artists take great risks in this line of work and the real risks are not those dutifully anticipated in the risk assessments. I was about to start working with an eclectic group of amateur canal restoration enthusiasts of whom I had no previous experience. I need not have worried: they were well equal to the task and began faithfully to restore the two abutments to their former glory.



A nut and bolt and giant meccano in the paint shop.

The canal is no longer connected to the main canal system. The locks at the bridge site fell in to decay years ago and further up, towards Radcliffe, the canal is breached, and yet the Canal Society members love their broken canal with passion. I have never worked with a more committed group of people. Here was a very mixed group of locals who were intent upon restoring the canal, a task that will probably not be achieved within their lifetime, but nevertheless they turn out in cold weather and work all day with an enthusiasm which gives one hope. I shall always be indebted to them for helping me realise this modest dream.

This project had taken three years. It became rather long and drawn out. Not all public art commissions take as long. However, all the false starts and community liaison contributed in the end to a good result and I believe the success of the Meccano Bridge is down to the fact that many local people were involved, and it is this involvement that will ensure its longevity. Frustrations with engineers and bureaucrats are just par for the course. In the end, all was resolved and the Canal Society is one step nearer their dream of a restored canal.



The odd number rule.