

CZECH TECHNICAL UNIVERSITY, FACULTY OF ARCHITECTURE, PRAGUE, CZECH REPUBLIC

AUTHOR: Simona Popadić

DEPARTMENT

SCHOOL YEAR 2017/2018 SUMMER TERM

TITLE OF MASTER'S PROJECT: **Sonoduc**

LOCATION: Nantes, Bas-Chatenay

Introduction

The project adopts what is a reasonable and sensible approach to the problem of old industrial artefacts. There is a dual problem with these surviving megastructures. They are generally not suitable for modern uses and so you may argue that the space they occupy could be used in a more productive way. On the other hand they contain a lot of embodied energy and the the energy and financial cost of demolition and reclaiming the site must also be taken into account.

In the case of the old silos we are obviously confronted with a series of massive structures, so large that as a combination it makes a very big impact on the local environment. So, is it better to demolish such a thing or to retain it?

Once such a structure has outlived its usefulness three options present themselves:

A - Demolition,

B – preservation as an industrial relic – a static reminder of our industrial past or

C – to adaptively reuse or recycle it – to convert it into something useful or something poetic.

Having made the decision to retain such a structure one would hope that such a structure could do both A and B – ie provide a space useful to the city and also to create something poetic from the prosaic and utilitarian structure that it once was.

The early modernists such as Mendelsohn (who has been quoted in the text) considered industrial and agricultural structures such as these to be artistic in their own right – soaring and powerful testaments to new technologies and intrinsically more interesting than the historicist buildings that were common in their day. For them, they provided inspiration and an indication of the way forward for architecture and urbanism. Can we say the same now? After a century of modernism we tend to view such utopian ideals with more than a small degree of scepticism and industrial structures are by no means always loved and adored by the general public. So, successfully proposing a large public expenditure on such a project might be a difficult task. The general public is not usually in awe of factories and old industrial wastelands. So to bring them round would be quite a challenge. In this case I think that the author has achieved this difficult goal – she has created something new from the old whilst keeping the impressive bones. Although it is difficult to prove the musical or sonic qualities of the project through text alone the seductive nature of the design and graphics leaves us wanting to know more – wanting to be persuaded. If I were commissioning such project I would have many doubts but I would definitely want to proceed to the next stage of design development.

Analysis

A number of diagrams and photographs have been provided to explain the urban development of the area. Obviously in its heyday Nantes had become quite a bustling semi-industrial city. The author gives us a detailed run-down of the history and the character of the various parts of the city, however, never having visited Nantes, I am left wondering what it is like now. For instance, what is the population? Is there a large potential audience in and around Nantes for such a mighty cultural institution as is being proposed? Is there an easy and fast connection from Paris or other major centres?

Connections

There are many diagrams showing the connections from the city and across and within the site. However, here is little evidence of how people arrive – by car, train, bicycle or on foot? On page 23 there are some red arrows in the river – I imagine that these might be potential or existing ferry stops, but it is not made clear.

The author states that:

“Overcoming the boundaries was always main task for planners, some things are just a strong mark on the land that changing them usually its out of possibilities.”

Then goes on to say that:

“This axes are connected with smaller paths that are offering different experiences and views of this urban sequence. Main goal for Bas Chantenay is to become new extension of the city, to be its new centre rather than a scar. That's why **focus is on the extension of riverbank promenade**”.

These are good intentions but I think that it would be useful to see a sequence of images showing the different views as they open up along this promenade. It is one thing to say it but I think that one needs to demonstrate it in order to convince, especially if the project is being presented to people who are not familiar with Nantes and its riverbank.

Program

The layout of the complex is determined by the configuration of the existing industrial warehouses, factories and other relics on the riverbank. This provides a place where people can ramble and discover different exhibits within the complex. The uses are fairly vague - “water tower”, “connection above rails”, “reuse possibility” and so on. However, the main game here is the “Sonoduc” sound museum project so I presume that the urban design aspect did not need to be fully explored or resolved.

To a certain extent we have to take a “leap of faith” with this project. The program consists of accommodating a series of quasi artistic/musical space and events. A sceptic could say that it is an enormous effort to create a very large musical instrument, without much other purpose, but then again, I suppose we could look at the Gothic Cathedrals in the same way.

The idea of the “Ruben's tube” and the “gas flow in different areas” resulting in different flame heights and a sine wave emerging “from the flames” are difficult to prove via drawings – perhaps a 1:10 or 1:20 scale model could be used to test the acoustics and the flames. The other thing is that the space is carved out of concrete so that the sound wave shape that is used to cut or create the space is a fixed thing – not able to be modulated like a traditional musical instrument. Perhaps the project could be taken one step further by allowing smaller cylindrical elements to move up and down within the concrete cylinders thus altering the sounds produced. Although a great deal of effort has been put into explaining the concept and the musical effects it remains something that is very difficult to demonstrate until it is constructed – as they say “the proof is in the pudding”.

A pedantic critic could find all sorts of potential problems. However, I have been charmed by the project especially the evocative internal spaces and lighting and I am willing to give it "the benefit of the doubt". Even if were to create just an event space and no "music" then I would still be happy.

Architecture

It appears that the form has been created through the use of a Boolean operation - the subtraction of a curved form from the Collection of cylinders. This is not as straightforward as it may sound - often testing the limits of a computer's resources when the shapes are complex. It can also be quite difficult to control and requires a mastery of the software in order to create a space that is poetic and beautiful as in this case. These complex computer operations often yield surprising and unexpected shapes and forms - forms which are difficult to imagine or conceive and describe using the traditional methods of thinking and conceiving with a pencil and paper and I admire the skill with which that has been achieved here.

Construction

The construction drawings are minimal showing mainly dimensions and not many notes or larger scale details. However, I feel confident that given more time the author would be capable of translating this into a buildable structure with a comprehensive set of documents.

Graphic and Text

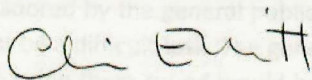
On the whole the graphics are restrained and beautiful. The page layouts are excellent and the representation of the ideas are clear. The use of colour is kept to the minimum which is often wise with such a complex project. There are many problems to solve and at the conceptual stage thinking about colour can be a distraction. There are numerous spelling and grammatical errors in the text, but this is fully understandable given that English is not the first language. Some of the diagrams whilst attractive can be a little confusing - for example the diagrams on page 30 and 31 would be helped by a small overview diagram showing how the three different parts connect together (the red lines that connect them are somewhat cryptic).

Conclusion

I commend the author Simona Popadić on the thoughtfulness and skill in conceiving and presenting this project. I'm of the opinion that this project has been handled in a mature and thorough way, yet without any diminution of youthful exuberance and audacity. The result is exciting and inspiring and I can without any hesitation recommend "Sonoduc" to be defended in front of the jury.

Suggested mark: A

Chris Elliott, Chris Elliott Architects, Opponent, Sydney 30th January 2017



Analysis