

The boundary between controlling everything and controlling nothing at all is an aspect I play with. Looking at my own process, I found out that I actually always start with controlling nothing at all. Experimenting in all different ways, for example investigating the material and finding out what happens if you boil it, destroy it, burn it, the list is endless. Always looking for that one moment of extreme happiness where you discover a new beautiful technique or a quality of the used material you knew nothing about. Within this process, where the possibilities are endless, almost everything can be used as a tool. So that means, visiting the workshops a lot, handcrafting, using all different things as a mole, but also being open to use new, digital techniques. My heart really is in the analogue way of making an object because it fits in the experimentation process, it is easy to manipulate and because of that, all different outcomes are possible.

But at this stage, a thousand ideas and at the same time questions pop into my mind. From all the different experiments, you have to choose one, but most of all, make it your own. An experiment with a material for example is a really nice way to get to know your material better, and come to surprising outcomes, but it is still just a matter of coincidence or good luck. The real deal is getting the same outcome for the second time and that is a point where the controllable part becomes important.

For me the digital world is one big controllable world. Machines were made to do just one task, and to that one task really good and precise, better than man ever could do. It isn't made to have flaws or to give their own interpretation on the assignment you give them. They just deliver your assignment the best and the quickest they can. That's great, but the thing I miss in that digital world is the atmosphere around it. A machine is the outcome of years of thinking, experimenting, trying to make it work by a couple of very clever man, but in the end, what I see, are just a lot of electricity wires and chips. It misses his history, actually, it missis a big slice of romance. Because when you look at the (old) crafts, it's a lot different. Even without an end result it's beautiful, just watching the craft itself. It has a rich history to get your inspiration from and working with these old crafts you feel connected to those who worked with it before. If you ever walk in to a workshop, you directly feel intrigued by the things you see and what is happening around you. The man in the corner who is working on his piece and you see all those tools lying around in the workshop, you can see the process of how it's made, it becomes so personal.

That's also why the challenge for me is, how can I make the digital more personal? For that there are different possibilities, you do have digital techniques which make it possible to connect people with your work or with each other, for example working with sensors. Sensors give you the possibility to control your devices, but also to make your project a lot more interactive. For that, the project you made becomes more one with the space surrounding it and with the people standing in that space.

[A great project, using sensors to make people more aware of the space they are in is 'the invisible cube' made by Jeppe Hein.](#) He uses camera's, sensitive for movement who make invisible lines. If you cross one of those invisible lines, an alarm goes off.

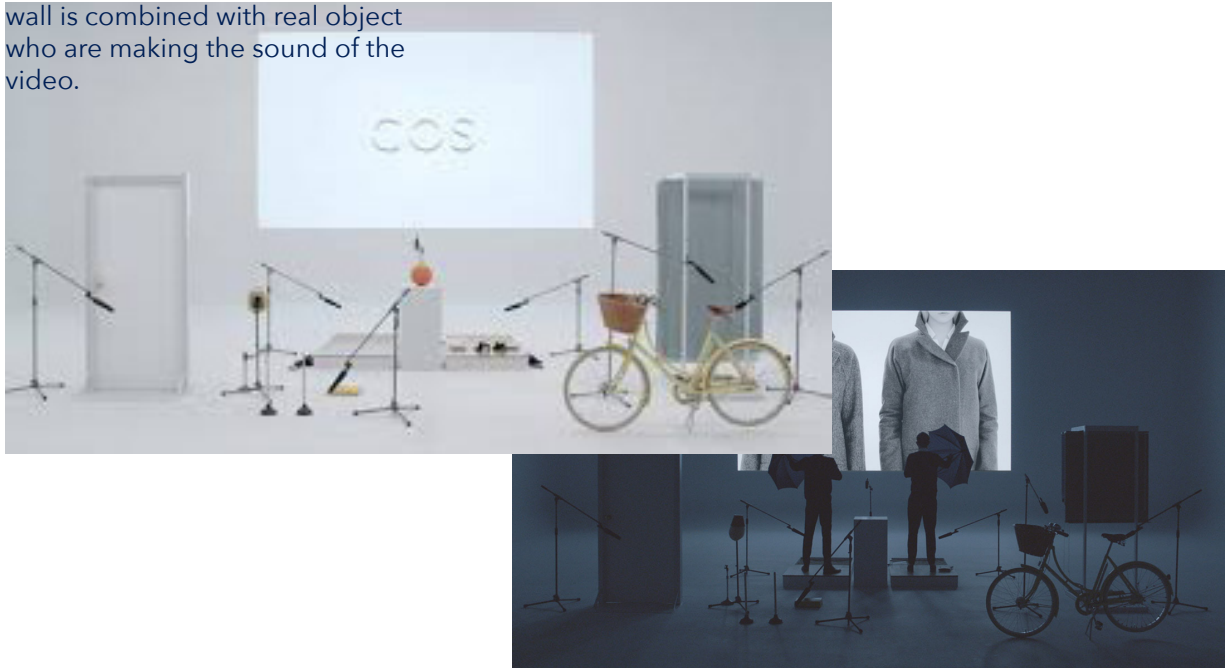


[Also the installation of Thomas Saraceno is a fantastic example of creating a relation with the space it's in and because you can walk on this installation, creating interaction with the audience](#)



But there is also another way of making the digital more personal. For that, you have to go back to the craftsman's workshop space and wonder what it is that you find the most interesting about that space. For me that is, seeing how it's made, showing the process, so actually revealing the mystery. The actual piece the craftsman is working on is not the most important thing anymore, but the way he works on it, is the aspect which makes your heart beat faster. Process becomes the main focus, and the end result is just an outcome of that process. So you have to combine those two worlds, the world of the craftsman where the process is the most important and the digital world where you want your end result as soon as possible.

This combination is beautiful shown in the video Cos made, 'the sound of Cos'. Where the digital, a video projected on the wall is combined with real objects who are making the sound of the video.



If you show all the beautiful techniques, which are often hidden in the machines themselves, and also emphasize them, you can bring some romance back in the digital process. By showing the process, you create an experience for the people looking at it, a special moment.



A great example of capturing a moment is the Cloud in a room of Berndnaut Smilde. He uses smoke machines, ventilators, water and light to make those clouds. As a spectator, it is a whole experience. You see the cloud grow and fade away, you see the whole process which makes it special and a camera eventually captures the right moment where the cloud is at his best.

Machines just really need a little romance, and the process must be shown instead of hidden away under triplex, if you reveal the mystery of how it's made, you create an experience. This experience is needed to let people remember and to let people connect more with your object/installation, making it more personal. I will always keep searching for the right balance between the controllable and the uncontrollable. But there's one thing I know, and that is that I'm just in love with the process of making my objects and showing that process also is an end result, an experience.

I started with the thought that I wanted to lift simple experiments to a higher and more aesthetic level. This because I think that function often gets so important that the magical aspect of a machine, tool, or process fades away. The process of making was already very important in my earlier project. In that project I was searching for the boundary between the controllable and the uncontrollable, playing with coincidence. A part where there is no controllability at all, is the part where you are experimenting.

An experience is already an interesting subject on its own. The thing is that you can have an experience, just by accident, or you can actually create one yourself. By creating one yourself, you have the controllability and the uncontrollability at the same time. You know you're going to have one, but you don't know whether it is a good or bad thing. Experiments for me, are the translation for this. You're creating your own short experience, but you don't know what you are going to learn from it. This made me think of the experiments book I use to have as a kid, pages full of possible experiences. A manual for at least an hour of fun, 5 minutes of extreme happiness when your experiment succeeded and after that 20 minutes of cleaning because all you have left from it was a big, big mess. When the experiment is all there is, it is the experience that counts.

Every project, you begin with a blank page, but a mind full of ideas. Your gathering all kinds of information by reading books, articles and hours of searching on the Internet, inspiration is to be found everywhere. How to filter and translate all that information is the second step. You have to make it yours and not somebody else's idea executed in another color. There's so much done already and there are so many people who are busy thinking about the same subjects as you do, that it sometimes feels like you are just reproducing old ideas and that the need is gone. Luckily all people are different and their will always be different ideas and different outcomes. Besides that time is changing and our ideas develop with that time, it is also almost physically impossible for 2 people to make the exact same object. This sometimes leaves me wondering about how my ideas would be if there was nothing yet designed, if everything still had to be invented.

Living around 1650, there was a run on who was going to invent a new theory or machine as first. Because, around this time, the age of Enlightenment began. The years before, people were also searching for explanations why things happened the way they did. For answers to those questions, they used theology; religion was a way to explain the unexplainable. In the Enlightenment, it was the first time that scientists broke through this tradition and started to investigate with a free mind by observing the world and experimenting. With this way of working, a lot more, and a lot of different conclusions were found. What happened is that it became a chain reaction, with every new solution, there directly was a new question to think about. The world was being mapped and classified, this in a very literal way by making an atlas, but also in a more scientific way by investigating new elements from nature or physical phenomena. Fossils were one of the biggest triggers to start investigating. Where did this come from, what does it mean, they found it to be the nearest connection they had with the time before the flood. A side effect was, that because they wanted to investigate all these natural phenomena, labs were founded and machines were made to get more out of the minerals, fossils, etc. they found.

The second step was to translate the information, from the investigations of natural phenomena, to more practical machines, which had the potential, that they could enrich daily life. This brings me to the electrostatic machine directed by Martinus van Marum around 1784. When studying, Martinus was already fascinated by static electricity. Now, some years later and with a lot of financial support from the Teyler organization, he could accomplish it. He made the biggest electrostatic machine in time, because he said that this was the only way to really make new discovery's.

It was a scary thing to do, but most of all exciting, he started with a simple natural phenomenon, static electricity and made a machine out of it where he eventually discovered the generator. Something no one new of before. Electricity and the storage of it, is now something everybody is used to. You just plug in and everything is working. But in the time Martinus invented the electrostatic machine, electricity wasn't part of the every day life at all. The machine was an attraction on it self, it was magical, entertainment in a way and most of all very exciting.

An invention which purpose it was to be entertainment was the escalator. Presented as an attraction in Coney Island New York. People actually paid to go up and down with the escalator. This first escalator was designed by Charles Seeberger, he also worked for a company who made elevators, so he was already busy thinking about how to get people up and down with minimum effort. In New York, they presented it as if it was an attraction, but some years later in 1900, they presented the first commercial escalator at the 'Exposition Universelle' in Paris. The Exposition was a place to show everything what was already accomplished in that century and to promote all the inventions that were yet to come. The first escalator in the Netherland was placed in the department store 'de Bijenkorf', it was a sensation. Now, escalators are to be found everywhere, we don't see it as a sensation ride anymore, it is pure practical. The funny thing is, that it becomes weird when the escalator isn't working. We are so used to it, that walking on a not working escalator feels unnatural. Your mind clashes with the idea that you have to walk yourself while that was the job of the escalator.

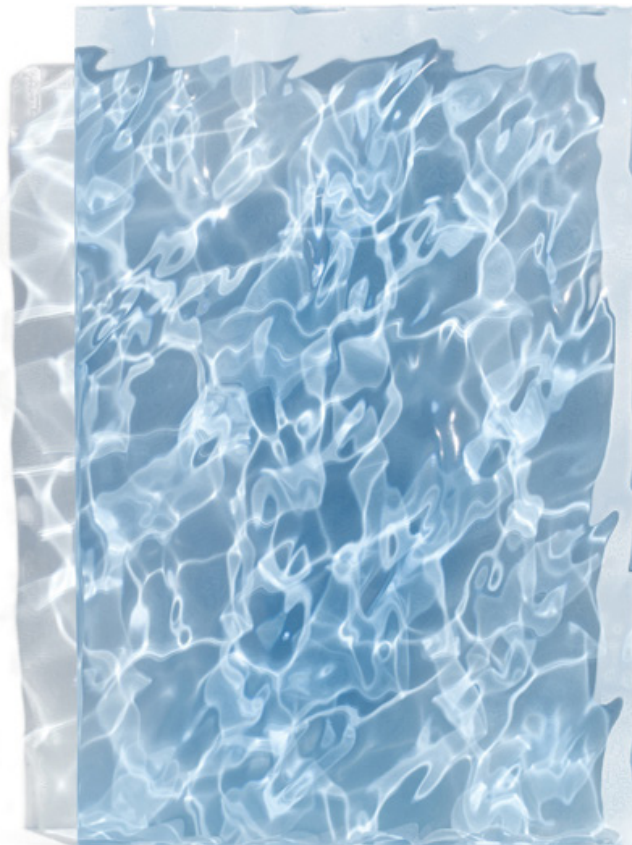
C H A R L E S - S E E B E R G E R
E S C A L A T O R



THE VERY COOL EXPERIMENT BOOK .

Technique develops in time; some things start as entertainment but end up as really function devices, indispensable in everyday life. As a child we all had those experiment books with all kinds of different assignments in it, this felt so magical, and most of all it was so much fun, but if you had done one experiment, there was only a mess left to clean up, it had no function. In time, these simple experiments, theories, disappear and make room for the more complicated techniques. Most of these techniques are for good use, but sometimes, electronic devices are made unnecessarily complicated. For example an air freshener, here they try so hard to duplicate nature. To get the right smell, you have to go through a very difficult process, while you also can buy a nice and smelly bouquet of flowers. The idea of the complexity of technique is a really interesting one. When do we actually need all this technique and when does it become a gadget, unnecessary. How can we use technique in a meaningful way without just using it for fun?

Sophia Collier, woman who grew up with a mother and father who were artists and after a lot of different projects and companies she owned, also became one around the age of 50. The idea to become an artist began when she was walking alongside the river in the town where she lived in. Standing on the bridge she looked down to the water and wished that she could just pick a piece up from the water and keep it forever. At this time, actually everything came together, she used the experience from her financial works to set up her studio and from that she also knew that it was possible to develop software to model turbulent nonlinear data. So she could use the same idea to model the always-moving water.



'A LITTLE BLUE
OCEAN'
BY
SOPHIA COLLIER

M O R E - I N F O R M A T I O N A B O U T - S O P H I A C O L L I E R

The very interesting part about the object Sophia Collier is making is that they capture nature, in a digital form. The shape of water, of a river is constantly changing, but Sophia is capturing this one moment, she makes the water stand still. The whole process is made digital, to make the outcome the most natural. The pieces are really magical, the transparency of it, how it makes these amazing shades on the wall when the light falls onto it, as if it is not acrylic but liquid. How magical the end result is, the more open source the making process. You can really see how she is making the pieces step by step in the videos she is uploading, especially in her project 'Grand'. In this project, she wanted to take a piece of the river, just like she did with all the other water pieces, but now, she also wanted to add the life around the river in it. To accomplish this, she recorded all different sounds, from the statue near the river to a kid on a swing pushed by his mother. The second step was to build a software where she added the patterns of the sound waves to a simulation she made from the river. When she visualized these different frequencies, she saw that they had a big resemblance with the river's turbulence. Now, the river and the life around it came together in one object. The pieces are made from a block of acrylic and get curved by a big, big CNC machine that she has standing in her studio. After the CNC machine has done his work, the process of sanding, sanding again and polishing begins.

The great thing about Sophia Collier is that the end result is so magical, while the making process is so transparent. The way she combines digital matters with real materials, the will to learn more about building software and always striving for perfection is a real inspiration.

An inspiration for my project where the process becomes the work of art is called 75 Watt, from the Belgian artists Revital Cohen & Tuur van Balen. On many mass-produced objects, you see the label 'made in China' hanging on it. Often the only thing you know is that it was made in a factory somewhere in China. But not every piece of the object is the work of a machine. There are people working on the objects everyday, with just one task they do repeatedly. Now the factory laborer becomes a man-machine. Cohen and van Balen wanted to highlight this so they designed an object. The only function of the object is to choreograph a dance. The way one employee has to attach wires creates and another one has to replace a box from left to right creates a dance, a performance. So in this project, the object is actually made to be a manual for the making process, for the choreography.

'75 WATT' BY
REVITAL COHEN &
TUUR VAN BALEN
MADE IN CHINA



Besides that the topic of mass production and the laborers working as a machine is a really interesting one, it is also a different way to make a project about the making process. It isn't only the process what is the end result, but you need a real object to create the process, to keep everything going.

The question is; when is an experiment just a way to get to an end result and when is it possible for the experiment to be the actual end result. This boundary is one that I find very interesting. Also because it is about giving value to something while it is mostly hidden in the process. Giving it value can be done in different ways, one is by taking it to a higher, more esthetic level and an other way is to give the experiment a function. By giving it a function, something that was useless before, gets a meaning. Now it is a mix of fun and function. You keep the magical experience you had when you did the experiment before, but you can also involve it in daily life, a reason is added for doing the experiment.



WRITTEN
ASSIGNMENT BY
BIENKE DOMENIE