## **14 Questions with Martin Lihs**

### Inventor of the

Interveiwed by T. Mikey

### WiiSpray is a virtual spray painting system that incorporates the wireless Nintendo Wii remote control into a pressure sensitive spray can interface that allows users to paint digitally on a projected screen through a Photoshop-like painting program. The resulting application looks and feels so amazingly true to genuine spray paint art, down to custom virtual stencils, that you might not notice there are no fumes.

Martin Lihs developed the WiiSpray system as his master's thesis project while studying art and design at the famed Bauhaus University in Weimar, Germany, and was kind enough to talk with ARTisSpectrum Magazine about his creation.

1. Could you describe your background a little? You clearly have a design background, but did you start as a spray artist and branch into technical applications, or do you consider yourself more of an electrical engineer wanting to update the spray media, or something entirely different?

"Yes, I have an art & design background...

I've been influenced by Art since I was a child. At that time I attended, twice a week, a public art school in my hometown where I learned the basic rules of drawing. A few years after the (Berlin) Wall came down, everything was in transition and so it was an incredible time for young people like me from East Germany.

At that time I became very in touch with the skateboarding and graffiti scene. You asked me if I have ever drawn graffiti. Yes, of course I did graffiti, but nothing really impressive. At this time I was more into skateboarding and the electronic music scene.

Some time later, I felt that I'd like to do more



Virtual Painting System

with my creativity and I decided to pursue schooling for Art and Design. At this time some new friends exposed me to computer graphics and media art. So this totally changed my point of view as well as my work. But on the other side I got into trouble with my teachers and their idea of art. They tried to point me and my ideas more in the direction of classical art.

At the same time I spent a lot of time in Weimar with friends who already studied Art and Media at the Bauhaus University. Right from the start, I loved the concept/way of teaching at the Bauhaus University. It's a non-school based system, which wasn't easy at the beginning - but it helped me so much to find my own way to be creative. At university I tried many things like radio, film and photography before I found my profession in the interface design major. In the beginning I worked only with software interfaces, interactive and web-based applications. My first hardware-based interface and interactive installation I did in my time as an exchange student at the Pratt Institute in New York City. There I felt free to try new things and I decided to visit classes for product design, electronics, interactive media and ceramics. Yes, ceramics. And it was a lot of fun! Back in Germany I placed a strong focus on developing my ideas of interface and interaction design, a mixture of industrial, hardware, software and screen design. I think with WiiSpray I've shown this idea perfectly. The idea was not to replace the spray can but rather I felt that there was something missing that could enter new virtual worlds."

2. WiiSpray has elements of spray art mixed with Photoshop mixed with the Wii Consol; was one or more of these sources the original inspiration behind the idea for WiiSpray and how did you go about bring them all together? WiiSpray was originally your thesis project, how did the project begin and when did you feel you might have something with a larger commercial application?

"During development in the spring of 2007, I, along with fellow student Frank Matuse, completed Prototype One, forming the groundwork for the WiiSpray. Upon consideration, I chose to further investigate this project for my master's thesis, developing an entirely new prototype, known today as WiiSpray 2nd edition. Complete with new ideas as to how the interface works, how the physical model appears, and a new 3 dimensional interaction concept as well as the software that allows for collaborative working over the internet and is now in a beta status, it took the idea to a whole new level.

However, the original idea of the project was founded much sooner.

While doing an internship in Lisbon, I had met street and graffiti artist "Target". This caused me to develop an interest in the medium of graffiti and the following questions arose:



"Is it possible to create a tool that allows one or more people to interact creatively independent of space and time?

"Furthermore, is it possible to exchange thoughts and ideas through this?

"Can people who have only been observers take part in the creation process?"

These questions and the "Nintendo Wii" technology were the basis for the resulting creative experiment."

#### 3. The system goes beyond just the spray can interface, there are also different nozzles, colors and even virtual stencils. Could you describe your thought process in making the virtual system as close to actual spray paint as possible? Have you worked with other spray artists in order to design the system as authentically as possible, and make it versatile for the many styles and techniques of the many spray artists out there?

"WiiSpray is the result of my master thesis - this means one person and three months time to get it done and three more months for the theory and documentation.

As you can imagine it was hardly possible to get it done in time. But in the beginning I spoke with a lot of artists. After this I had to decide what features were necessary - for the graffiti artist and for the interface design. In the last six months I spoke again with graffiti artists, and this had a lot of influence over the new, third version of WiiSpray. In the end it's the spray can itself that gives the artist the possibilities, but the style and the techniques I got from the artists allow me to take a look at the process itself. Sometimes it's like a puzzle and you have to find methods and work-arounds to get it right."

### 4. Do you feel you have achieved a truly authentic spray art simulator, or are there still more elements you would like to incorporate into the system?

"Of course not I'm not satisfied yet, WiiSpray was in the beginning just an idea and the result is a creative interface design experiment. WiiSpray provides a framework of different possibilities without any specifications on how to use it. Every user decides for themselves what his or her creative expressions might be.

WiiSpray, as a project, is still in progress and there are some things that I have not yet shown to the public. I will publish more and more tools like the stencil feature or an extension of the software that allows collaborative work in real time."

### 5. Are there elements of the WiiSpray system you feel are an improvement to actual spray paint, or some things that WiiSpray can do that spray paint cannot?

"Of course, there are some things that you can do with a spray can but not with WiiSpray. Furthermore, it's just a prototype system at the moment - that's why I am working on the third version. But it's difficult to answer whether there are elements which are improvements, because I'm not sure if you can really compare both systems, the spray can and WiiSpray. I would say that every medium has its possibilities, advantages and disadvantages. These will influence the way artists will use it for their ideas and in the same time it influences the resulting artwork."

#### 6. You have shown your system to the people at Nintendo, could you describe their reaction?

"Yes, I had an invitation from Nintendo Europe and we spoke about a possible future for WiiSpray. Nintendo likes the idea a lot, but on the other hand, if I wanted to license WiiSpray for the Nintendo Wii, I would have to develop a much simpler controller that fits completely in with Nintendo Wii's interaction Concept.ii. That's reason that I decided to develop the third version as not being restricted to Nintendo's Wii - this looks to be a very good decision."

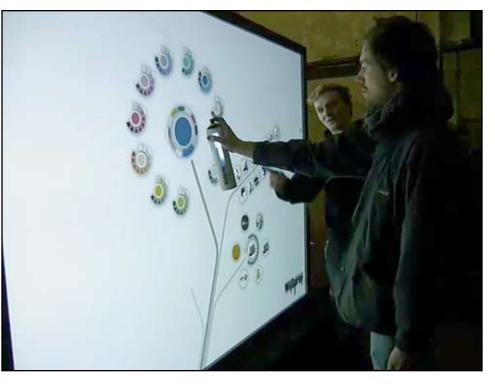
#### 7. What would you describe as the public's reaction to WiiSpray? What would you describe as the reaction from artists?

"It's different, for a lot of the artists it is highly interesting and for some it's the worst thing that ever happened to graffiti. But some of these critical people change their minds after they understand that the foundational basis of the project is not replacing real graffiti. Moreover, WiiSpray should be seen as an interface to give graffiti a new virtual dimension behind the boundaries of our tangible world."

8. You have announced WiiSpray V3, and the spray can is 60% more lightweight. Is there more you could describe about the new version? Is the improvement restricted to the hardware or have elements of the painting software also been improved upon?

"Yes, I am working on "WiiSpray V3" and it will also get a new name. This next version will work without the Nintendo Wii hardware. This means that there will be no legal or technical restrictions anymore and it will be compatible with most gaming consoles and PC's.

Now, after 6 months of testing under almost every condition and with a large focus group, I know what I have to improve on in both hardware and software. For sure one point will be the weight - even though the weight of the current prototype is no more than the



weight of a regular spray can. If I have enough time I might improve the simulation of a real spray can's physical characteristics."

### 9. Who would you say is the target audience for the WiiSpray system, professional spray artists or younger fans of Nintendo or painting enthusiasts of all ages and backgrounds?

"This is a very good question - what do you think? I think graffiti has no restriction at all. But you are right to ask me. I would say it is better to distinguish between professional artists and casual gaming applications

and users. That's the reason that there will be a "Pro" and a "Light" version of the controller."

10. While many spray artists work legally on commissioned murals, the spray art has its origins in painting at illegal locations. Many of those spray artists see the element of risk as part of the art form; the riskier the site, the more impressive the artwork (example: painting a subway train or a bridge). Do you feel WiiSpray would not appeal to artists seeking an element of risk, or would WiiSpray give those artists a more controlled way to practice their skills in a safer environment?

"Yes, you are totally right - I think WiiSpray can't give you the feeling you'd get if you paint on a illegal or risky place - this is a advantage of real graffiti. The advantage of WiiSpray - in combination or as add-on for a computer game - is the possibly to reach a huge audience throughout the whole world without any limitations in time and space - and this could also be very interesting, even thrilling."

11. Many professional spray artists are commissioned legally to paint public mural. In times when those opportunities become more rare there may be more of a temptation for younger artists to practice in illegal locations. Do you think something like WiiSpray in a public setting might provide an outlet for those younger artists to express themselves and actually reduce illegal spray painting in a city?

"WiiSpray was never meant to replace graffiti as an art form, its interface is intended to bring graffiti to the virtual world. But, being publicly available, it can help different people get in touch with each other - you could use the collaborative real time aspects to get in touch with people around the world. As a public installation it might inspire people to try to make graffiti that they never would do otherwise, and this can change their perceptions of graffiti,



from seeing it as destructive to viewing it as a creative and fun art form."

# 12. Is there anything you feel cities, schools and non-profits could do to provide people such as yourself with more opportunities to explore and develop the applications of art and technology in addition to encouraging the public's exposure to it?

"A good question. I think it's up to everyone to develop their own ideas and aim to develop the first prototype of those ideas. Support should be there, though, to provide artists with more opportunities and possibilities, like labs, shops etc. and with professionals to help out and teach people to work with new tools."

#### 13. What are you currently working on?

"On WiiSpray V3, a hardware interface for Twitter and different other experimental interfaces."

#### 14. Where do you envision the WiiSpray system in the next 5 years?

"This depends on the market and the interest of people and investors. Currently it is a difficult time for an innovation like WiiSpray, especially here in Germany. I also need to find investors who believe in what I do."

#### I'm certain you will Martin, thank you so much for sharing with us.

For more information visit: **wiispray.com**