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Epilogue: A Conversation between Val Ravaglia and Suzanne Treister

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Val Ravaglia: *Let's start by talking about your Fictional Videogame Stills. Could you tell me the story of how they came about?*

Suzanne Treister: From about 1986 onwards I had a boyfriend who used to go to video game arcades in Soho in London in the evenings. I'd go with him and observe, because I wasn't really into playing the games myself. This was the first time I had really seen those kinds of machines and that kind of imagery. So my first exposure to digital imagery was in video games and in a narrative form. The majority of the games had a war-like setting, they were about shooting and destruction. They were predominantly aggressive and militaristic, and this got me thinking about the future of technology as something that I should be concerned about. It was a really critical encounter. Some of my paintings up to that point referenced game structures, so it seemed quite an obvious move for me to start using the language of video games in my paintings, as a way of thinking about new technologies and their future uses. It didn't even seem possible to me at that time that I could *own* a computer. I didn't have any money, and I didn't really know anyone with a computer. That kind of visual imagery seemed to be something that could only be done at a very high end. So I started making paintings about video games instead. I used repeated imagery to form mazes, suggesting game structures and imaginary narratives. For example, one of these paintings was called *Video Game for Primo Levi* [1989] and it was connected with Levi's history of being a concentration camp survivor; one could imagine moving through this maze and trying to escape. Other paintings incorporated scenes from actual video games, which I photographed in the arcade and used as reference. At the time I wasn't aware of anyone else who had made any art about video games.

You have said that reading William Gibson was one of the triggers for you to decide to get a computer and start using it to make your art.

Yes, it was reading *Neuromancer* by William Gibson [1984] that gave me the impetus. By '91, I had heard that you could get relatively cheap computers, so one Saturday afternoon I bought a Commodore Amiga and started working with this software called Deluxe Paint II to make my first video-game still. Obviously this idea had been brewing with my video-game paintings, but after that I gave up painting more or less overnight. The year before I bought my first computer, I'd met a guy who worked in a digital graphics design company. He told me he had a computer that could paint, and the next day I got a demonstration. It was the first time I'd held a mouse and used a graphics editor with a toolbox. It was a really magical experience. I moved my hand and this bright coloured line flew across the screen, like a big arc. Suddenly I was controlling these amazing, luminous colours on this digital interface. I think I felt a massive paradigm shift at that moment. It was a sense of ecstasy and a sense of panic, almost like a disembodied, transcendent feeling; something quite spiritual. In that first experience I felt the potential embedded in this technology, and a need to make work on computers that would explore not just the aggressive side of video games and the potential militaristic uses, but the multiple possible trajectories and embodiments of new technologies. Because technology is invented by human beings and it can be as complex as human beings are, it just depends who is using it and for what purpose. So that's always been my dream, to somehow navigate technology both critically and holistically.

Were you in any way aware around that time of previous works by older artists that had an interest in electronic technologies, or of early uses of computers in art?

Not really. This was before the World Wide Web, and from around the time I left art school in 1982, I don't remember seeing computer art in any London show I attended. I may have seen works with abstract, computer-generated patterns in books perhaps, and I might have been aware of someone like Nam June Paik. But there was also a sense that artworks done on computers were more like special effects, they weren't really considered art. I personally wasn't aware of any work being done with computers that was in any way critical. When I first got my computer in '91, there was a very hostile reaction. The computer was seen as something which was going to kind of ... eat your brain. And I had to explain to people that I wasn't going to make work simply dictated by the machine, but rather that it was going to be *about* the machine and what the machine could do. People assumed that anything made with a computer was generated by the machine, that it took away individual creativity, and therefore that it was to be dismissed. I think people were as scared then as they are now with AI – scared that the machine would take over. Whereas I thought that as an artist I was responsible for articulating my existence in this world and reflecting on what's happening to it – that I had to take control of this machine before it took control of us.

When you made the Fictional Videogame Stills, did you have complete scenarios in your head for what the video game was, like what the goals or the characters were?

They were more like mysterious, suggestive snapshots, really. The text was really important. It would sometimes be in the form of a question. In one the text said 'Q. There are 10 questions.' That one actually referred to the 10 commandments. I would often tangentially bring in some religious subtext, which was asserting a possible belief system into that digital space, but also questioning it at the same time. Another one was 'You have reached the gates of wisdom', which sounded kind of like a mystical quest. And then there were some that questioned the idea of a virtual paradise. In '91 I had tried virtual-reality games at this place called Segaworld at the top of the Trocadero, in Piccadilly Circus, where you put on a headset and could move around a virtual environment on a giant checkerboard platform in outer space, where monsters descended from four staircases to try and kill you. I remember going to the edge of this board, looking out onto outer space and trying to jump off. But that's where the interface ended, and the software wouldn't let you leave the platform. So I was interested in the idea of virtual reality from '91. I did a series of video-game stills called *Would you recognise a virtual paradise?* It was a sequence where the first still is in some strange imagined digital world, with the title included as text. In the second one a system message comes up saying 'Not enough memory for operation'. My Amiga would often say 'You don't have enough memory', because back then you only got half a megabyte of RAM. Then in the third, another system message pops up, saying 'Presume virtual breakdown'. The fourth said 'Now enter a virtual wilderness', and there's an interference pattern in the original landscape where reality glitches. So it's not as real as you may think it is, because you can see there's the virtual paradise behind bars of interference, and then you've got this strange row of geometric shapes suggesting another reality. So the series starts off with this magical landscape, which gradually gets interfered with.

Do you feel like we are now in a 'virtual wilderness'?

Yes; I imagined it back in '91 quite clearly. That series was imagining that we would evolve to create a virtual paradise, which I gradually broke down and questioned. I was asking people to challenge this idea of virtual paradise, even though they didn't even know it was possible at the time.

The fifth still in the series says 'Software failure. Please enact repetition of the crime'. What 'crime' exactly?

I think I was possibly imagining people playing that game who may have some guilt on their conscience. I was very interested in psychoanalytic theory at the time and in a kind of 'psychology of the audience' in relation to those technologies, and of the people who were going to go on and use them. I wanted to create a kind of ethical questioning, somehow.

I'm particularly struck by the one that says 'Have you been sentenced to a fate worse than death?' Is that because of said crime?

It's more abstract in a sense. I think that's partly because in those games, and in thinking about the potential futures of technology, there was always this feeling that you were under attack – that technology could take control in some way or could be used to control people. A 'fate worse than death' could happen maybe more easily if there were machines involved. We know that in the Holocaust, for example, without the IBM computers used for the census the Nazis wouldn't have been able to track down so many people. So the idea of digital reporting and the power of data collection were already implicit in those works in a way.

So you were thinking of a state of constant surveillance and fear as a 'fate worse than death'?

I don't think I had a specific idea for it at the time. I think I was abstractly anticipating potentials, and a lot of what I did has proven very prophetic. For example, in 1993–4 I made that series of software packages [SOFTWARE series] that anticipated the whole idea of the app – these different softwares that could digitise different aspects of life. I'm always trying to think the future, to push myself to get beyond what we can imagine, always thinking, 'Do we need to worry about this? How do we safeguard?' These things come out in everything I do.

It seems to me that the way that you were engaging with technology at the start had a lot to do with visual storytelling. Were the Fictional Videogame Stills the first time you used text in your work?

Yes. My earlier paintings didn't have text, and actually it was a great relief to me to find out that I could just add text instantly in the graphics software. And it would have a different kind of authority to it, because it was on a screen rather than hand-painted. Interestingly, after about six months of making those works on the computer, I wondered what would happen if I went back to painting. There would be no point doing the kind of paintings I had done before, because I had moved on and translated them into digital form. So I found myself doing a series of text paintings with quite weird expressionist fonts that I made up, which combined a kind of techno-spirituality with a rather psychedelic way of painting. That was around 1992.

Was there a moment when you realised that the use of certain technological digital tools allowed you to tell stories differently?

Yes: in 1995, when I created my alter ego Rosalind Brodsky, the time-traveller. Firstly I made a series of time-travel costumes, which were actually sculptures with various electronic appendages, a group of attaché cases and other works. Then, when I started to make a multimedia CD-ROM about Rosalind

Brodsky's time-travel based research, I was able to really create an extended narrative, which was more like an interactive film. The authoring software, Director 5, allowed me to include text, images, video, animation, audio and interactivity. It was multi-time-based so people could navigate various different trajectories and directions in a rhizomatic, hypertextual narrative. The internet and these new interactive technologies were allowing artists and writers of the time, such as Mark Amerika, to experiment with non-linearity.

When did you first hear about the internet?

I moved to Australia in 1992, and maybe a year later someone described the concept of email to me. I couldn't envisage that it would catch on – the idea seemed a bit dull to me at first. I think that was due to the fact that computers were used primarily for business and the military. Not many people had a computer to do anything creative with, and the idea of emails seemed like an office thing to me. But then literally five minutes later I signed up for an email address. I joined Nettime, which started in '95, and all these online LISTSERVs, these global discussion lists. I became a huge advocate and I was telling everyone they should get on email, that they could change the world by communicating with people all over the planet at a grassroots level. Noone in London listened to me until maybe six years later, when they wanted to buy things on the Internet. In 1995 I also made my first web project which was a precursor of my interactive CD-ROM.

So you were there at a moment when you actually felt like it was possible to use the internet as a grassroots medium.

It was possible. It actually was a new counterculture. Me and my friends in Australia were linked up with all these other people in Europe, North and South America, Asia and Eastern Europe and the Balkans, getting information and communicating about what was really happening on the ground all over the world. Of course, it wasn't available everywhere, but when people managed to get access to it, they could communicate what was happening in, say, a village in Bosnia. Instead of reading something in the newspapers, you were getting this information feed instantly from people who were experiencing a war zone – not through a commentator or a politically filtered system. And that felt like it was going to change everything. At that point there was this idea of a new kind of culture and freedom of exchange, which followed on from various poststructuralist ideas, like decentralisation, power to the margins, flattening of hierarchies. It was a huge paradigm shift, and a kind of utopian fantasy that power and control could be more universal, that all those people who had previously been oppressed or marginalised would now be able to speak on a level playing field.

But it was also a very critical environment. There were always conversations on Nettime or other discussion groups monitoring every little step of the way, and people were very aware of potential negative aspects and inequalities that might still be maintained. We were very aware that the internet was historically a military venture, and constantly reminding each other of how privileged we were to have access to it. The people I know from the last thirty years or so of the new media art scene have been part of that questioning from the beginning; we know the history of that 'net politics' period of the 1990s. This separates us from people who only started using new technologies when they wanted to buy something online and didn't know what the Internet could have been. Tim Berners-Lee, who invented the World Wide Web in 1989, had more hopeful plans for the future, which he's still working on.

And the fact that it was a technology developed by the military wasn't a deterrent?

Well, just because they developed it didn't mean that they were necessarily going to be able to control it. It was an unusual situation, that suddenly this powerful advanced technology was made generally available to civilians. But then, about five years later governments and corporations started to monopolise it and various American organisations were set up to control domain names and other things. A lot of that is in my *HEXEN 2.0* project [2009–2011], a series of works addressing the history of cybernetics and its links with computing, the internet, the military and certain countercultural movements. It became clear to me in 2000 that the Internet was no longer a utopian space, and that everything one did could be monitored, controlled and harvested. Since 2000 I've made very little work using technology itself; I've mostly used traditional media, like drawing, to make work *about* technology. I didn't want to be part of the arms race.

It strikes me that digital warfare emerges in your work as part of the research that you do to look back at the uses of technology, at how the gamification of warfare and the relationship between digital technologies and military research and development (R&D) was something that was present from the get go, first with game theory and then the development of a digital version of those war games that were used by the military for training purposes. It has manifested in literal warfare, with someone in a room piloting a drone to destroy a building on the other side of the planet. In a sense, that was the worst-case scenario you might have envisioned, maybe subconsciously, when you entered the arcade environment and noticed everyone was shooting, right?

Exactly. I couldn't have really anticipated it, but yes. This is also in *HEXEN 2.0*, in the 'History of the Internet' diagram [*From ARPANET to DARWARS via the Internet*]. And in the tarot deck, one of the cards [*Ten of Swords – DARWARS*] has all that stuff that the US military were saying around 2009 about how they wanted to provide online virtual training, 'continuous on-demand training anywhere, anytime for everyone'.

When did you become interested in the history of cybernetics?

I started reading about it in 2009. When I understood what it was really about, I realised it mirrored the way the internet operated as Web 2.0, interactively as opposed to the read-only first incarnation of the Web. With Web 2.0 there were cybernetic feedback loops that were passing your information up and then feeding things back to you. That was clearly, to me, a cybernetic model. And that really confirmed to me that we needed to start worrying about Web 2.0, because a cybernetic feedback loop is a system of control. I researched cybernetics quite heavily. A useful illustration is Norbert Wiener's anti-aircraft missile prediction system that he developed during the Second World War. Wiener was one of the core participants of the Macy Conferences on cybernetics, which took place in New York from 1946 to 1953. These brought together thirty figures from the hard and soft sciences – from ecology to psychology to computer engineering to anthropology – who gathered in the aftermath of the Second World War to develop a unified theory of the human mind and how to control it. The intention was positive, in the sense that they wanted to try and build a society where fascism could not arise again and there could not be another Holocaust. Those thirty people then moved on in various directions. So, for example, Margaret Mead and some of the others formed the World Federation for Mental Health in 1948, which was supposed to establish some idea of 'normal mental health' across the world. So this idea of cybernetics could apply to all kinds of disciplines. The outcomes of imposed cybernetic systems of control depend on

who and what is controlled and by whom, and for me, in the case of Web 2.0 it raised major alarm bells. I made *HEXEN 2.0* to address these issues.

The word 'cybernetics' comes from the Greek for 'steersmanship'. To me this immediately conjures images of literally being manoeuvred by someone else. On the other hand there are ways of interpreting the whole idea of cybernetics on more neutral ground, as being a study of feedback loops in biological systems. I think it's also useful as a way of rephrasing the idea of interconnectedness in an ecological sense, to drive home the idea that what our species does has ripple effects on the environment that then feed back to us in negative ways. Sadly, only now that these effects manifest in a tangible and catastrophic way do most people finally truly understand what those feedback loops mean on a planetary scale. Do you think that having a better understanding of the origins of cybernetics might help with thinking in ecological terms in a different way? Is there something to recover from the early days of cybernetics?

The Macy conferences brought together research from so many different disciplines. George Hutchinson, who studied circular causal systems of organisms in relation to their environment, was the only ecologist participant. Gregory Bateson had been developing his theory of schismogenesis in cultural anthropology; a certain human behaviour has repercussions, and the interaction between individuals becomes cumulative; you get a *positive* feedback loop and things escalate out of control, whereas *negative* self-regulating feedback loops, like a central-heating thermostat, produce a self-regulating system. The Macy conferences wanted to develop society as a self-regulating system. The ecosystem is no longer a self-regulating system controlled by negative feedback. Human intervention has caused positive feedback sending the system out of control.

Maybe what's particularly helpful from today's ecological perspective is how second-order cybernetics puts the emphasis on the observer in that feedback loop. It's a way of pointing at the observing entity and at how that position is a potentially active one. You're not just observing a closed system: you're part of that ecology, or part of that network or community that you can influence in a way or another.

Yes, of course, because we are a crucial part of the ecosystem. Human beings didn't set out to disrupt the equilibrium of the ecosystem in a way that would end in their personal destruction, but we can now see what's happened ecologically as a dangerously positive cybernetic feedback loop that threatens the whole system which includes us.

Hutchinson saw the ecosystem as a self-regulating system controlled by negative feedback loops, warning that the increase in atmospheric carbon dioxide would lead to a global temperature increase, so using cybernetic modellings to stabilise the ecosystem is an ideal scenario: the re-establishment of negative feedback loops involving ourselves within the total global and universal environment.