Mom and me through the looking glass

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Abstract
This article focuses on the collaborative work of the artists CapCat Ragu and Meilo Minotaur in Metaverse environments. The aim is to describe and analyse their cooperative creative process from the perspective of one of the artists/authors, walking through three artistic works that were made in the Second Life® region of Delicatessen: ‘de Maria, de Mariana, de Madalena…’, ‘Petrified’ and ‘Meta_Body’. These projects reflect two aspects of the artists’ work – on the one hand avatar art, and on the other the creation of virtual environments. The text also reflects on the concept of shared creativity, which the artists propose through their avatar creations.

Keywords
Avatar, metaverse, play, shared creativity, metaphorical body, virtual corporality.

Introduction
We are two metaverse avatars. We are also mother and daughter; I am CapCat Ragu and Meilo Minotaur is my mother in real life. We are both artists, and as artists it seems that all through our lives we have been dealing with the same issues that we are now working on together in the Metaverse. When I was a little girl I used to love the Carnival holiday. In Portugal this is a time to dress up, and to imagine ourselves as the other… I remember my mother staying up all night working on these amazing see-through butterfly wings for me. I think that these were the first avatars we ever made together.

During the 1980s my mother was in a handicrafts group called Gárgula, where she and her colleagues made what I would now call clay avatars. She was a ceramist, but did not do pottery; instead she made these strange characters inspired by the imagery of her fantasy world. This type of work was also often made collectively by the Gárgula members, and we would never know who had made what, thus turning the collective into an organic multi-author entity.

As I grew older I too became an artist. It was the turn of the millennium and I was very involved in activist and feminist art, working with a feminist artistic collective called ZOiNA, which worked very much like Gárgula did, only with different media and in a different context. We were exploring notions that are now fundamental for me and Meilo, such as play and embodiment as an aesthetic experience. This came to the fore in works such as ‘Ludic Zone’, which was an installation of a colourful relaxation area inhabited by an anthropomorphic rag doll, in which a suit could be worn by the visitor to the space, and to which the wearer could attach a wide range of props and organs creating different characters and interactions.
In my independent work I was also focusing on the body as a metaphor, questioning the perception of the body as a formal mental scheme and our social identity as the idea that one has of one’s own body – in other words, the design of a body. I argued that in western society the reproductive systems had come to be established as a form of social identity. It was this metaphor that I intended to underline, analysing the individual as the reproducer of socio-cultural stigmas.

Avatars at play: Second Life

In 2008 we joined the three-dimensional world of Second Life. My mother, who entered the world as Meilo Minotaur, was the first one to create an account, and very quickly she dragged me in as well. It was early summer, and I went there as a kind of online vacation, just to play around. In fact, our entire engagement with the virtual world was very much like playing with dolls at first – the dolls in question being our avatars, of course. For Beth Coleman an avatar is a ‘computer generated figure controlled by a person via computer’ (2011: 12), but she broadens the term to include any form in which people can interact with each other in real time. For the purposes of explicitness, throughout this article I will be using the term in its more restricted sense, referring to the representation of a resident of a three-dimensionally embodied virtual world.

Returning to my analogy above of playing with dolls, however, an important notion that I would like to juxtapose with the avatar is ‘play’. While ‘play’ is an everyday concept for children, this becomes quite problematic and very unstable when it comes to adults, and especially when it comes to identifying a scholarly definition of this activity. B. Sutton-Smith has emphasized this ambiguity and the important role of ideology in the way it is analysed, because ‘forms of play, like all other cultural forms, cannot be neutrally interpreted [...]’ (Sutton-Smith 1997: 216).

The difference between the categories of ‘game’ and ‘play’, or of ludus and paidia (Caillios 1958 cited in Frasca 2007: 38), becomes noteworthy when this ambiguity is examined within a linguistic context: G. Frasca suggests that the difference is that ludus games define winners and losers, while paidia games do not (2007: 39). Tom Boellestorff notes that many scholars have underlined how virtual worlds are not goal-oriented, and he even states that ‘assuming that theories about games and play are necessary foundations to understanding virtual worlds leads to serious misinterpretations’ (Boellestorff 2010: 22).

Thus, in Second Life, to play by the rules does not mean to play a game. The world does have its rules, the ‘Terms of Service’ of Second Life probably being the most important of these, but this is a legal agreement between the residents and Linden Labs, the owners of Second Life. To add to these there are of course also social conventions like there are in any society, and breaking them can have its consequences. None of these, however, are game rules in the proper sense of the term, unless, as Boellestorff puts it, we trap ourselves in a definition ‘so vague that we must include in it most of our actual lives’ (2010: 22).

Therefore, when I refer to play in Second Life, I am referring to its paidia dimension. Our dolls (our avatars) were for dress-up games, but they were also our way of communicating with other avatars. It did not take our
‘dolls’ long to create their own personalities, perhaps as some extended projection of our own, but not exactly the same… mine always more stable, Meilo Minotaur’s always more of a shape shifter.

For D. W. Winnicott the ‘cultural experience begins with creative living first manifested in play’. In fact, he localizes this in ‘a potential space between the individual and the environment’ (Winnicott 1971: 135), which is the place of experience, the place where we play around, making play, as Frasca puts it, an aesthetic genre (2007: 57). According to Frasca, ‘play events are not fixed beforehand. Instead, they are constrained and those limitations are the elements that constitute their aesthetic dimension’ (2007: 58). Ironically, my first art project comprised a set of limitations that I imposed upon myself. This was a road trip, a journey undertaken in Second Life without the usual teleports, which was therefore an inversion of the typical way in which Second Life is traversed, as a hypermedium with hyperlinks. Throughout this journey I made a photographic journal on Flickr documenting my adventures. This was both a ‘factual and a fictional narrative’ (Schaeffer 2010), which I undertook in order to meet new people and see new places in the metaverse. These meetings were documented in my journal, but at the same time the pictures were a kind of storyboard of a fictional road trip, role played by me, in places that I actually visited in the sequence of the narrative. Some people would argue with my usage of the word ‘actually’, but as Jean-Marie Schaeffer puts it, ‘it can be said that if every fiction results from a process of mental simulation, the opposite is not the case, i.e. that every simulation produces a fiction’ (Schaeffer 2010). This somehow parallels the concept of Second Life itself, a mixture of the fictional and the factual, a tension, an overlapping between the two dialectic perspectives of the world – those of the immersionist who sees Second Life as a self-contained world that is more prone to role-playing or fiction, and that of the augmentationist who sees it as an extension of real life, another platform of social networking and factual encounters (Bennetisen 2006).

What should probably also be mentioned is that during this journey I also developed a keen enthusiasm for virtual photography, which became my main creative interest at this point, and I began to exhibit my photographic work, both on Flickr and in in-world art galleries.

Meanwhile my mother, i.e. the avatar Meilo Minotaur, was more interested in building, and started working on her own land, mainly landscaping at first, but she also very soon began to make virtual sculptures. Unlike me, she played around with alts avatars that are, as Elif Ayiter puts it, the ‘supplementary virtual identities through which a virtual world resident can operate, together with or separately from the main avatar’ (Ayiter 2008: 9). Many residents create these accounts to escape social engagement (Boellestorff 2010: 128–34). This is mainly what my own alt avatars are for: I use them to build, and to teach, without being constantly interrupted by social solicitations. My mother is different in that although Meilo also has building avatars, most of her alt avatars have their own stories and personalities; they are in fact characters she has embodied through internal focalization (Niederhoff 2011). Playing with dolls was getting more and more complex. Conceptualizing avatars was now becoming quite important in Meilo Minotaur’s Second Life.

In the late 1990s Frank Biocca drew attention to a process that he called progressive embodiment, which may
Each progressive step in the development of sensor and display technology moves telecommunication technology towards a tighter coupling of the body to the interface. The body is becoming present in both physical space and cyberspace. The interface is adapting to the body; the body is adapting to the interface [...] [and] each new medium must somehow engage the body in a new way [...] (Biocca 1997: 1–2)

Naturally Biocca soon starts discussing the relevance of the avatar. However, the avatar that he refers to is not the ‘small puppet used in standard computer interfaces’; instead he is talking about a body in which shape and boundaries are to be defined by the interface and the perceptual illusions generated by the head-mounted display (Biocca 1997: 7). However, the kind of sensory engagement described by Biocca did not become as ubiquitous as the researchers of the 1990s expected it to. Boellestorff stresses that ‘this notion of immersion does not accurately characterize the dominant cultural logics at play in Second Life’ (2010: 112), and Celia Pearce suggests that:

Enhancing and perfecting sensory inputs and so-called embodied interaction were seen as the primary means of increasing this quality of presence. However, this and other avatar research suggests a different conclusion: that having a representation of the self visible inside the world may actually enhance the sense of presence, as well as the sense of embodiment. (Pearce 2009: 122)

Nevertheless, although Biocca’s view of the third person/observed avatar (Morie 2007: 132) is rather disparaging, it does not conflict with his overall research findings, since he too addresses the question of social presence that Boellestorff feels is paramount to Second Life’s sense of immersion. Thus, Biocca distinguishes three different kinds of bodily presence in virtual environments: objective body, virtual body and body schema. He defines them as follows:

The objective body is the physical, observable, and measurable body of the user. The virtual body is the representation of the user’s body inside the virtual environment. The body schema is the user’s mental or internal representation of his or her body. (Biocca 1997: 13)

Biocca also found changes to body schema even in what he calls ‘non-immersive’ environments, such as television, where exposure to the idealized body shape leads to a sense of a thinner and younger body in his subjects. This is in accordance with the findings of N. Yee and J. Bailenson, which show that virtual
environments can dramatically alter self-representation. Their studies show that one’s behaviour can change according to one’s avatar – and not only online, but in subsequent offline interactions as well. (Yee et al. 2009: 285–312).

These findings have everyday life implications as the use of avatars has become increasingly pervasive. Many video games and platforms have these ‘computer-generated figures’ that represent their users; they range from a few pixels to very complex three-dimensional models. They exist even in games that are played individually, but in a multi-user world they are a prerequisite, as Pearce points out. She highlights the importance of avatar design:

If the avatar is framed as a form of personal expression, as performance medium, it is not hard to see the ways in which the components of the avatar kit dictate the forms of expression that occur. (Pearce 2009: 111)

Jacquelyn Ford Morie notes that in virtual environments ‘our experience is very much influenced by how we perceive our self, and yet, within most immersive environments, as they exist today, this choice is still made by the VE designer’ (Morie 2007: 130). Yee and Bailenson also addressed the question of stereotype in virtual worlds. They state that:

Researchers have also demonstrated that stereotype activation oftentimes occurs with an automaticity that is beyond conscious control and that the presence of these stereotypes leads to prejudicial interactions unless conscious intervention is applied. (Yee and Bailenson 2006: 147)

Second Life, in addition to giving its residents the ability to change the appearances of their avatars, has the advantage that one can also upload content, such as textures, meshes and animations whereby avatar appearance can be customized to an unprecedented level. Therefore, the designers of the avatars are the residents themselves, since they can design their own avatars or can make use of what other residents share or sell.

Thus, it is not hard to understand that as time went on and avatar conceptualization became increasingly more important, as stated before, the appearance of the standard avatar revealed itself as simplistic and became frustrating for us. For Meilo Minotaur and me, conscious intervention came through the output of a fashion store called alpha.tribe in Second Life (Ayiter 2008: 119–38).

alpha.tribe’s avatar creations seemed to us to highlight the way in which standard avatars were stereotypical representations of an idealized, sexist body. When we came across alpha.tribe’s apparel a revolution happened in the way in which we saw ourselves in the metaverse, and we were inspired to completely rethink the way we embodied our own avatars. It was, somehow, at this time, that my avatar deviated from its humanity,
without, however, totally abandoning the human metaphor. It was shortly after this that I also began to recreate my own avatar by using material that I developed myself – either through adaptations of Creative Commons Second Life avatar templates or through textures entirely of my own creation.

Figure 1: Building by the avatar CapCat Ragu using alpha.tribe apparel, virtual photograph, Catarina Carneiro de Sousa, Second Life, 2009.

**Avatar builders: Delicatessen and our transition to ‘Shared Creativity’**

By 2009 we already had our region in *Second Life*, which we decided to call ‘Delicatessen’. It was a landscape created mainly by Meilo Minotaur, where I had my photo studio in a castle that I called ‘PhotoDelicatessen’.
We gave our land this name not because of Marc Caro and Jean-Pierre Jeunet’s film, but because of the European meaning of the word, a store for delicacies. This time we worked much more closely as builders: we were also getting better at terraforming, and I was now also doing it and loving it. Land owners in the metaverse can change the geography of their land altogether – growing hills, carving rivers and valleys, as well as painting them by changing the ground textures into natural or even unnatural earth coverage, ranging from grass and dirt to geometric patterns or even fully recognizable images. On this geography one can then build objects by using Second Life’s tools to create three-dimensional objects or load three-dimensional objects made in external software, which can then be textured through visual material that can be uploaded into the world from the computer’s hard drive. All of this enables residents to build a paracosmos, perhaps a materialization of that potential space that Winnicott tells us about, which involves tying the self and the common through a place of experience.

While we were building I was also experimenting with creating my own avatar skins. Consequently, we decided to make the first avatar we ever shared with others, i.e. with the visitors to our land who could obtain this item from a virtual vendor box. This avatar was called ‘Elfa!’, a feminine Christmas elf, and she was given as a Christmas gift to celebrate Delicatessen. To our great joy the recipients of ‘Elfa!’ liked her and blogged about her much more than we expected. It was this positive reception of ‘Elfa!’ that made us think of the possibility of distributing our avatars in the future, given that we found that it was incredibly exciting to see the ways in which others were re-implementing our work as part of their own creations. And it is this observation that effectively brings me to the notion of ‘shared creativity’. As I suggested in the introduction of this article, partaking of the creative process was not new either to me or to Meilo Minotaur when we entered Second Life. In fact, it has been a method of production throughout our lives, but the new medium revealed new possibilities and new ways of sharing. There are two different ways in which one may address the concept of shared creativity – one is through collective creation, the other is through distributed creativity.

When I address collective creation I am referring to a creative process in which all of the agents involved act as one creative entity. The complete dissolution of one’s identity within a common one is of course utopian, and a truly co-creative process, where everybody is an equal partner (Bauwens 2006: 33–44), is a very rare occurrence in large and even medium groups.

To work as a band, as a plural organism (or a several-headed monster), is quite common in the music world. In the visual art world, however, this is less common, since the entire cultural structure is built for the author/individual, from the art educational system to the museum.

Therefore, I refer to collective creativity as a process developed by a small number of co-creators, who share a high level of intimacy. A cellular structure, an equal partnership wherein each member relinquishes his or

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her own authorial mark in favour of the group’s authorship. This seems to me to be a good way of describing how my mother Meilo Minotaur and I work together in Second Life. In the metaverse the three-dimensional objects that are placed upon the world are automatically stamped with the names of authors; however, in our case this means very little, as we often transform each other’s builds, constantly exchanging things from one to the other and even working on the same build at the same time, whenever that is physically possible. This kind of creative process requires, as was stressed, a high level of intimacy, complete trust and complete openness. Trust to give up your creation to the other blindfolded, trust that the relationship will not break when you disagree, openness to state your insecurities, fears and uncertainties and to speak your mind no matter what. It is a companionship, not a mere association. This is the way we build our avatars. Once we distribute these avatars, however, an entirely new process of shared creativity with the world at large then begins.

When we deliver our avatars to the world, they go on their way, separated from us. Nevertheless, we love to see them change and grow, becoming the avatars of others, inhabited by a different identity that will ever so slightly or radically change it. We enjoy seeing it happen. One often hears of authors talking about how feedback from the contemplative audience is important to them. When seen in this way we are indeed fortunate artists, since our work is lived by others, absorbed, transformed and recreated. Although they do not have an exchange value for the market, since we do not sell them, they appear to have a use-value for a community of users and they are always ‘unfinished artifacts’ (Eno 1995), permanently mutable bodies… This brings us to two emergent concepts, both of which have been born out of online communication cultures: peer to peer (P2P) and produsage.

Michel Bauwens specifies that his conception of peer to peer (P2P) ‘does not refer to all behavior or processes that take place in distributed networks’, but ‘specifically designates those processes that aim to increase the most widespread participation by equipotential participants’. (Bauwens, 2006: 33)

Bauwen’s process is a utopian one that is defined as a third mode of production, governance and ownership. This means a drift from an ‘exchange value for market’ to a ‘use-value for a community of users’, ‘governed by the community of the producers themselves’ and in which ‘use-value is freely accessible on a universal basis’, a ‘peer property mode’, a common property of sorts that differs from private property and public (state) property (Bauwens 2006: 33). Bauwens also states some requirements to facilitate P2P genesis, stating amongst them the importance of the Internet in the emergence of this new way of the common that ‘allows for universal autonomous production, dissemination, and “consumption” of a panoply of materials and “enables autonomous content production that may be distributed without the intermediary of the classic publishing and broadcasting media’’ (Bauwens 2006: 34).

Axel Bruns defines the concept of distributed creativity as ‘projects which harness the creativity of a large range of participants to build on and extend upon an existing pool of artistic material’ (Bruns 2010: 1). This can also be seen in the online creative sharing communities that are based in the dissemination of visual output, from
Flickr pile-ups to Creative Commons collages, such as DeviantART fan art.

Bruns developed the concept of produsage to describe a new arising reality ‘emerging from the intersection of Web 2.0 user-generated content, and social media since the early years of the new millennium’ (2010: 3), realizing that the conventional sense of production no longer applied to ‘massively distributed collaborations […] constantly changing, permanently mutable bodies of work which are owned at once by everyone and no-one’ and in which the participants easily shift users to producers and vice versa, originating a hybrid role in between (Bruns and Schmidt 2010: 3).

de Maria, de Mariana, de Madalena…

Returning to our own specific case, however, without even knowing about the concept, produsage was becoming a method of creation for us. So when 2010 came, after two years in Second Life, we were ready to take a step forward.

The opportunity came early that year when the artist Carla Cruz invited us to participate in an exhibition entitled ‘All My Independent Women’ (‘AMIW’) in its fifth edition, in Coimbra, between 21 May and 18 June at the Casa da Esquina.

This edition of ‘AMIW’ revolved around the collective reading of Novas Cartas Portuguesas/New Portuguese Letters (1998) by Maria Isabel Barreno, Maria Teresa Horta and Maria Velho da Costa – a 1972 book that was banned by the Portuguese dictatorship, causing the famous case of the ‘Three Marias’, which became a milestone in the history of feminism in Portugal (Barreno et al. 1998).

The publication that accompanied the exhibition re-edited a version of Maria de Lourdes Pintasilgo’s preface for the book’s third edition, which was published in 1980. Her words will help me to clarify a little more about this book:

Such is the rupture introduced by the New Portuguese Letters that a first approach to them can only be done in light of what they are not. They are not a compendium of letters, although it is recognizable in them the style traditionally developed by women in literature.

They are not a set of sparse collection of poems, even if they become poetry in all reality portrayed.

They are also not a novel, even if the story lived by (or imagined by) Mariana Alcoforado is the main plot. (Pintasilgo 2010: 6)

Novas Cartas Portuguesas/New Portuguese Letters is a book written in three hands, in the form of letters, and we never know which of the three authors wrote which part of the text. The book takes it trajectory from a much earlier text in which a nun named Alcoforado appears as the central character of a book from the seventeenth century entitled Cartas Portuguesas/Letters of a Portuguese Nun (1998). In this early book Alcoforado writes letters to her lover, the Knight of Chamily, from her convent in Beja. In the new book, however,
Alcoforado presents an opportunity to dissect a range of questions relating to gender and womanhood (Alcoforado 1998).

Despite all the texts in New Portuguese Letters being called letters, not all are in fact letters in the formal sense of the word. The subject branches out and fragments. There are multiplicities of voices, who write on behalf of Mariana, or her mother, or her sister, or the Knight of Chamilly and so forth.

Pintasilgo continues in the same preface:

> It is obvious that the New Portuguese Letters would not have had the echo that we know that they did if they did not reach a symbolic level in which one recognizes women from all continents and social classes. In a second reading, the body, as a privileged place for denouncing the oppression of women, goes beyond that which it represents. It works as a metaphor for all forms of oppression hidden and not yet overcome. (Pintasilgo 2010: 6)

And it was precisely this idea of a metaphorical body that created the main point of interest for our own project.

Experiments by Yee and Bailenson point to the possibility of embodied perspective-taking in virtual environments having an impact on the reduction of negative stereotyping (Yee and Bailenson 2006: 154). Taking our inspiration from this, we invited Delicatessen’s visitors to embody themselves in women’s shapes. For this we created three avatars that we made freely available as the fruits of a Great Tree. By touching particular fruits on this tree, visitors received one of these avatars: Maria, Mariana and Madalena.

In their different ways all three women were the most dangerous woman on earth.

Maria was a pregnant woman. She was shorter than the usual Second Life avatars and much heavier and portly. We were particularly proud of the skin folds on her back, which are of course very common in many women, and her heavy breasts. All of these physical attributes were very different from those commonly used in the Metaverse to denote feminine beauty. Her clothes were primitive, with a cloak made of sheepskin and a necklace made out of baby’s teeth. Of the three avatars she was the only one who was armed – she had a primitive knife strapped to her thigh. She was a mother and a warrior, but one who literally came in the proverbial sheep’s clothing. Ergo, she was the most dangerous woman alive.

Mariana was a tree. We made her while we were thinking of Bjork’s ‘Bachelorette’ verses: ‘I’m a tree that grows hearts | One for each that you take’. According to Cecilia Meireles, Mariana learned from spring to let herself be cut and always bloom again (Meireles 1945). It was indeed her giving nature that also made her so dangerous.

Madalena was the prisoner of the gaze. Both her shape and skin were more in line with the usual stereotypes in Second Life – tall, thin and sinuous, with firm breasts and milky skin. She was a desirable woman. Her desire had become a mirror of the Other’s desire and therein lay her power, turning her into the most dangerous
woman on earth…


We did not intend to propose these avatars as stereotypes of woman as mother, the woman in love or the desirable woman, let alone reduce women to their status as mother, bride or lover. What interested us was precisely to problematize such concepts through the metaphorical appropriation of the body. As Griselda Pollock remarks, ‘[…] the body, not as a biological entity, but as psychically constructed image provides a location for and imageries of the processes of the unconscious, for desire and fantasy’ (Pollock 1996: 6). This is consistent with Biocca’s notion of body schema and Yee and Bailenson’s findings exposed before. Pollock continues, on the *semioticized body*:

> The body is a construction, a representation, a place where the marking of sexual difference is written, and it is because the body is a sign that it has been so invested in feminist politics as a site of our resistance. (1996: 6)

Judith Butler, proceeding on Simone de Beauvoir’s famous claim ‘one is not born, but, rather, becomes a woman’, states:

> In this sense, gender is in no way a stable identity or a locus of agency from which various acts proceed; rather, it is an identity tenuously constituted in time – an identity, instituted through a stylized repetition of acts. (Butler 1988: 519)
This performed and semioticized body was now completely open for metamorphosing, since the wearers of the avatars were always free to recombine the attributes of the individual avatars, using different shapes or skins or adding clothes or props – even their own. Whoever embodied these female bodies had in their hands the power of transformation, the freedom to reinvent their ‘self’. We were the mere distributors of some possible signs; it was up to each person to perform and construct meanings.

As I have mentioned above, for us Delicatessen and the avatars themselves were of little value without the input of others who became engaged with them. It was, in fact, the appropriation that each person could do that moved us. The region was built based upon our own experiences, on our experience of gender, on our particular references. It is natural that for us every tree, every object, had its own meaning; however, that meaning was transformed and expanded in the reading of those who experienced the islands and wore the avatars whilst doing so.

As the book Novas Cartas Portuguesas/New Portuguese Letters invites an erratic reading, so did Delicatessen’s multiple islands. We did not offer a default route; we preferred that each person build his or her own way, by wandering in the region.

This time the landscape was different; it did not look like a simulation of a plausible landscape. Although there were trees, water, ground, islands, rivers, hills, nevertheless everything was unlikely… There were trees that looked like sculptures and sculptures that looked like trees. Some were dreamy and poetic, some were scary and dark, most of them were both at the same time, standing in that thin line between beauty and horror.

To share the various ramifications of this project (and others that followed it) we created a group on Flickr called SL – Delicatessen where we tried to collect the images people created from our region and our avatars, which came about as virtual photographs and as machinima. It is in this shared creativity that work begins to make sense to us, as part of a creative flow that involves all the people who have the initiative to create something and share it with others. Opened for recreation, reinterpretation and reconstruction, this stream is a river full of side streams and branches through which we just passed, leaving our input open to the reusage of others who would pass through it after us.
Petrified

This was our second project together and we rebuilt Delicatessen entirely for it.
The region was built around a main central island with a big bay and a pointy hill. Around it smaller islands floated in the air and on the sea, lurking through the mist. In each of them a scene was depicted – a crying tree, a ghost forest, a girl playing the violin to a flamingo, a white dove carrying a human heart… While these scenes did not relate directly to each other, they were bound together by a strange feeling of crystallization. In the announcements for its opening one could read:

When the past tangles you in sweet and bitter smells
When a fly buzzing on your ear gives you shivers
When a single frame takes your breath away
When the scream in your throat doesn't make a sound
When your dreams freeze before your eyes
When you lay roots before you can leave the ground
When your body turns to salt
When your heart stops and time swells… you are petrified.

It was this idea of unfulfilled desire that motivated us throughout the project. The feeling of being frozen during an accomplishment, just before getting there. Like Adrienne Rich’s bee described in the quote below, locked in a place where life cannot be fulfilled:

Beginning to write, then getting up. Stopped by the movements of a huge early bumble bee which has somehow gotten inside this house and is reeling, bumping, stunning itself against windowpanes and sills. I open the front door and speak to it, trying to attract it outside. It is looking for what it needs, just as I am, and like me, it has gotten trapped in a place where it cannot fulfill its own life. I could open the jar of honey on the kitchen counter and perhaps it would take honey from that jar; but its life-process, its work, its mode of being, cannot be fulfilled inside this house. (Rich 1985: 7–8)

Trapped in a body, a house or a country… To fulfil desire is not the same as fulfilling wishes; it is the fulfillment of a desiring vocation. It is not about possibility; instead it is about potency.

We felt this desiring vocation had petrified us. Not broken, not subdued, just frozen. All of its potency just about to burst in our chests, but contained, on the verge of becoming.

Many things in our lives took us to that place at that time – being women, being mothers … and, of course, being metaverse artists. Many aspects of our existence kept telling us that what we did was meaningless.
I believe many people who are creatively active in the metaverse share this frustration: in conversations I have held with fellow metaverse artists, one of their biggest complaints is the feeling of not being taken seriously by their peers in real life. In fact it seems to me that nothing is held to be ‘real’ or ‘contemporary’ in today’s art world unless it somehow involves some kind of physical installation. My rather bold assertion in this regard was already forecast at the end of the last century by Rosalind Krauss when she warned her readers about this circumstance, regarding how mixed media installation had become the new Academy, to be seen at every biennial and pervasive at every art fair (Krauss 1999: 20), seemingly bringing about the exclusion of all other art forms from the very notion of contemporary art.

Stripped of its inaugural potency and transgression, installation is now just the way you do things in art, ubiquitous and unquestioned. Thus, it seems to me that to do anything else (unless it is performance art) may well end up in being considered not to be contemporary. To do it in the metaverse adds to this conundrum, since in this case not only is your output not contemporary but it is also not really real: it is just make-believe.

The critique of illusionism toured throughout the first half of the twentieth century, leading towards abstraction. As Clement Greenberg puts it,

> The Old Masters had sensed that it was necessary to preserve what is called the integrity of the picture plane: that is, to signify the enduring presence of flatness underneath and above the most vivid illusion of three-dimensional space. […] The Modernists have neither avoided nor resolved this contradiction; rather, they have reversed its terms. […] Whereas one tends to see what is in an Old Master before one sees the picture itself, one sees a Modernist picture as a picture first. (Greenberg 1992: 756)

Although in its second half there was a ‘return of the real’, nevertheless the ‘anti-illusionist posture was retained by many artists and especially by the art critics who were involved in conceptual, institution-critical, body, performance, site-specific, feminist, and appropriation art’ (Foster 1996: 127). This atavistic fear of illusionism leads to a confusion, which is not only a prerogative of the art world, but affects the word virtual to an ever greater extent. Pierre Lévy notes that virtual does not oppose real, but instead stands in opposition to the term actual. Therefore, it appears to me that just like desire, virtuality is not about possibility, but about potency. ‘The realization of a possible is not a creation, in the full sense of the term, because creation implies also the production of an innovative idea or form’ (Lévy 1996: 16). The possible is just like the real but without an existence; the virtual, on the other hand, asks for a resolution, is problematic, complex. ‘Actualization then emerges as a solution to a problem, which was not previously contained in the problem’s statement’ (Lévy 1996: 16). The actual is not predetermined by the virtual, as Lévy reminds us: it is not its realization, but an answer to it. The virtual has everything to do with desire.

However, illusion was not always as disreputable as it appears to be today: Louis Daguerre and Charles Marie
Bouton loved the whole idea of illusion when they exhibited their first dioramas in Paris 1822. Daguerre would later become famous for his discoveries in photography, but he began his career as a stage designer and painter – a profession that is devoted to the visualization of illusion and of make-believe. The diorama was therefore a rather sophisticated design that had its origins in Daguerre’s earlier work onstage scenery. What was new and different from traditional stage scenery, however, was that Daguerre aimed to create a naturalistic illusion of space solely through the manipulation of light: 70×45 feet pictures were painted on both sides of a translucent material, letting light change the picture, not only affecting its chromatic atmosphere, but also revealing parts of the picture painted on the back of the canvas. R. Derek Wood describes it as follows:

By light manipulation on and through a flat surface the spectators could be convinced they were seeing a life-size three dimensional scene changing with time – in part a painter’s 3-D cinema. To display such dioramas with the various contrivances required to control the direction and colour of the light from many high windows and sky-lights, as well as a rotating amphitheatre holding up to 360 people, a large specialist building was required. (1993: 284)

Effectively, there appears to have been an attempt to create a three-dimensional immersive environment, a simulation. Today one can see the adaptation of Daguerre’s original concept in many anthropology or natural history museums displayed as three-dimensional scale models of natural or historical scenes. Although in some cases the manipulation of light to bring about a state of immersion is still utilized, the genre has extended itself to also use physical objects and artefacts. Therefore, contemporary dioramas vary a great deal when it comes to scale, sophistication and the usage of materials, depending upon where they are realized and to what purpose. While on the low end of the scale, one can observe artefacts such as a papier mache volcano made by a small child for a school project, on the high end of the scale, the output can be highly compelling, lifelike, very often also digitally enhanced dioramas, such as the ones that can be seen in museums and exhibits, as mentioned above. Stuffed animals inside a painting or entire city scale models… What the overall concept of the diorama makes common to all is that they are self-contained. From very small to very large, they are an ‘all world’ or an ‘all story’. Dioramas can also be embedded inside larger dioramas – an ‘all world’ within an ‘all world’ in other words. However, even in such cases of nesting, they are nevertheless intended to function independently; they do not need the ‘big picture’ to be understood. It should also be added that dioramas are also very close in concept to snow globes, ships in bottles, dollhouses and pop-up illustrations. They carry the same effect of wonder; therefore they do not even need to be immersive (in the three-dimensional virtual sense of the term) to take us to another world. They achieve this by producing a sense of absence, given that they address the consciousness of self in relation to the world, or the conceptualization of the world to be more precise. This
mindstate is also called *extended presence*, and addresses memory, imagination and the capacity to elaborate about the future.

J. A. Waterworth, G. Riva and E. L. Waterworth distinguish three layers of presence – *proto presence, core presence* and *extended presence*. The first relates to spatiality, that is, the notions of ‘myself’ and ‘outside myself’, and it is mostly unconscious and automatized. The second is sensory presence; it is about the consciousness of being in the world, in the here and now, and it is thus of a perceptual nature. The last layer, *extended presence*, is about conceptualization (Waterworth et al. 2003).

Unsurprisingly, when viewed within this taxonomy, dioramas are conceptualizations of the world: they can be about the real world as scale models, or about memory, which places the viewer within historic or natural scenes, but they can also be about fantasy, about entirely imagined worlds. In short, I would like to suggest that they address *extended presence*. In a diorama, space itself is conceptualized. It is virtual space in the sense that it does not refer to an actual space, but works towards the evocation of a potential space that resides within our imagination.

This is also a very suitable description of how Second Life Island was built for the Petrified project. It should also be noted that this extended sense of presence that is also to be found in dioramas had as much to do with our process of building the islands and the clusters of digital objects that were placed within them as it did with the finalized project. Not being standalone objects in the exact sense of the word, one could call them installations, but they were in fact much more like dioramas that helped evoke potential spaces or events.

Consequently, each cluster was an open narrative conceptualization. In virtual worlds there are two perceiving bodies, that of the avatar who is immersed inside the world, and our own, which is behind the keyboard. As I will address further on, while we need the avatar to connect with the world and to see it from the insider’s perspective, we are still situated outside of it. Ergo, we see the world like a child looking at a ship in a bottle. Engaging this world takes the same effort that a child needs to muster in order to have a meaningful relation with that ship. This effort and facility requires (and is) imagination – pure and simple.

Looking at all this from yet another vantage point, the individual, isolated (and yet interrelated) scenes to be found in Petrified looked like dioramas because they were more like frozen agents than sculptures. The petrified human tree crying like a fountain or the ones caught in the act of trying to escape their fate of being rooted, the strange masked man standing in his cloak, the three ghostly little girls – all of them could be seen as taxidermied avatars. Except for the circular flight pattern of the seagulls and their cries, one would say that time stopped at Petrified, just as it does inside a snow globe.

Some of these dioramas were also inspired by images from films that we related to this feeling of muffled potency. It should, however, be noted that these films were very different from one another, and their perceived commonality was founded only in our interpretation of the material, which led us to infer that their characters, at some point, were petrified and that this was somehow connected to unfulfilled desire or
shattered dreams. One of the recaptured film scenes involved the dream scene from Andrei Tarkovsky’s film *Zerkalo/Mirror*\(^2\) (1975) in which the protagonist’s mother washes her hair in a bowl only to find that her house falls apart and washes away along with her hair in a torrential rain. In order to adapt Tarkovsky’s narrative to our virtual ecology we created a cabin made out of rocks that was located under a big tree. Inside this cabin a creature resembling a woman or a doll was seated at a table with her head and arms down, her hair dipping in a bowl in front of her, while one could hear and see the rain inside the cabin.

At the bay, underwater, we had yet another female figure with loose hair, attired in a long black dress, attached by a rope from her ankle to a sunken piano. She was completely still; not even her hair or her skirt moved. Just above her, afloat, a dog and its master on a little boat seem to expect something to emerge. While the human figure of the master had exactly the same face as the dog, further above, in the sky, on a cloud, a translucent white woman was seated by a translucent white piano. This three-levelled scene consisting of the two women, one immersed underwater, one floating in the sky and the man/dog duo in the middle, was a reference to a scene from the film *The Piano*\(^3\) (1993) by Jane Champion in which one of the protagonists, Ada, puts her foot in the middle of a coil of rope attached to her piano while it is being thrown into the sea. Like a black jellyfish, she floats underwater, bound to her piano, transfixed.

The sky islands were also inhabited by dioramas, some of which were also inspired by such film scenes. In one of them, visitors could pose in bushes with a fox, while a strange couple, him human-like, she a hybrid of a woman and a tree root, seemed to rise from the ground and the tree that stood above them. In this case we recalled two of the famous and controversial scenes from Lars von Trier’s *Antichrist*\(^4\) (2009), namely, the one that involves the dialogue with the fox, in which a fox eating its own bowels tells the main character that ‘Chaos reigns’, and the scene where a couple have intercourse whilst leaning into the roots of a tree.

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2 Tarkovsky, Andrei (1975), *Zerkalo/Mirror*, Moscow: Mosfilm.


Figure 4: Ghost piano above, environment built for ‘Petrified’ by Catarina Carneiro de Sousa and Sameiro Oliveira Martins in 2011, virtual photograph, Catarina Carneiro de Sousa, Second Life, 2012.

Figure 5: Ghost piano below, environment built for ‘Petrified’ by Catarina Carneiro de Sousa and Sameiro Oliveira Martins in 2011, Virtual photograph, Catarina Carneiro de Sousa, Second Life, 2012.
While the Petrified landscape was at Delicatessen’s ground level, we initiated another project in a skybox, far above in the region’s sky completely autonomous from the previously mentioned project. The project Meta_Body was developed in response to an invitation to participate in the 2011 edition of the exhibition ‘AMIW’, its first outside of Portugal.

In its sixth edition, the exhibition was shown in Vienna, Austria, from 3 November until 3 December, in the Austrian Association of Women Artists (VBKÖ) space.

This edition of ‘AMIW’ was largely a continuation of the 2010 edition. Its subtitle was ‘Or Rather, What Can Words Do?’ a question quoted from the book that was the thematic basis of the previous edition, the collective reading of the *Novas cartas Portuguesas/New Portuguese Letters* by Maria Isabel Barreno, Maria Teresa Horta and Maria Velho da Costa, as explained before.

The idea of the metaphorical body, approached by us before, was thus continued and expanded to its full potential with the project Meta_Body.

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*Figure 6:* ‘Meta_Body’, poster designed by Catarina Carneiro de Sousa and Sameiro Oliveira Martins, *Second Life*, 2011.
The virtual experience of the body is not exactly an experience of the flesh. Although metaverse experiences have a perceptual and sensorial aspect, they continue to be experienced in our organic body, and not in our avatar body. We could look at a very realistic virtual cake and salivate, but if our avatar eats it we will not taste its flavour. We will have only the suggestion of taste… However, studies by J. Fox et al. imply that strong feelings of presence in the virtual world may produce feelings of satiety in those who observe their avatar eating (2009).

Biocca notes that the phenomenal body is not stable and can be radically altered by the use of media (Biocca 1997). Nick Yee, N. Jeremy Bailenson Ducheneaut and Nicolas Ducheneaut similarly conclude that virtual environments can significantly alter self-representation. Their studies show that behaviour can change according to the avatar, not only online but also in offline interactions. For example, individuals with taller avatars show significantly better performance whilst negotiating with shorter avatars, and the effect persists outside the virtual context, in subsequent face-to-face contact between the humans behind the avatars. These and other changes in behaviour resulting from the handling of avatars the authors called the Proteus Effect (Yee et al. 2009: 285–312).

Maeva Veerapen highlights the existence of two bodies in the metaverse, the user and the avatar, one organic, the other an image. How do you create ‘presence’ through these two bodies controlled by a single subject? And where, in all of this, is the phenomenal body? Veerapen proposes three conceptions of the avatar: the avatar as prosthesis, the avatar as a phantom limb and the avatar as an equal (Veerapen 2011: 81–100). The prosthesis is an object that acts as an extension of the potential of the phenomenal body. Thus, although the user does not have direct and immediate access to the virtual world, the avatar acts as a prosthesis that extends the frontier of the user's body. It is known that amputees still have sensations in the phantom limb. Unlike an amputated limb, however, the avatar never was an actual part of the user's physical body, but nevertheless can lead to feelings that are provoked other than by direct physical stimulation (activating memory, for example). Consequently, it can be claimed that when seen as a phantom limb the avatar adds an emotional dimension to the experience of the virtual world. By setting the conception the avatar as an equal, Veerapen recalls that during his experience in the metaverse the user's body could not fulfil all the tasks of a phenomenal body, since the physical body did not have direct access to the virtual world; that this access could only be provided through the body of the avatar. Conversely, the body of the avatar is not sensorially or perceptually able as is the case with the physical body. Thus, between them, the physical body and the body of the avatar meet all the qualities necessary to constitute a phenomenal body. What is noteworthy in all of this, however, is that this does not correspond to the simple sum of the two bodies, but their symbiosis. This bifurcation is also suggested by Morie, who reminds us that as we enter the virtual world we are entering a world that is not completely imaginary, but is still ‘not fully based in solid physicality’ either (Morie 2007: 127). This is a world whose abstract and variable dimensions consist of bits, which are ruled by conditional behaviours. Through these we experience in a metaphorical way, through simulations (Murray 2012).
G. Lakoff and M. Johnson suggest the importance of metaphors based on bodily experience, in how we think and act upon the world. The authors consider that the ordinary conceptual system is fundamentally metaphorical – the way we think, what we experience and what we do every day is a matter of metaphor. A significant part of our concepts is organized in terms of spatial metaphors: up / down, in / out, forward / backward. These metaphors are rooted in our physical and cultural experience (Lakoff and Johnson 2002).

The metaphor is fundamental to the way we interact with the computer. When we drag an item from our ‘desktop’ to the ‘trash’, we are just providing a command to the computer to delete that object. Most current operating systems work through these kinds of metaphors that, according to J. H. Murray, are fundamental in the design of digital interaction (Murray 2012). Following from these general metaphorical attributes of the computational medium, it hardly needs to be re-asserted that the virtual bodies that reside within the metaverse too are metaphorical bodies and therefore a body of expression and language.

We focused on this aspect, on project Meta_Body, thinking of the avatar as a body / language that is open to experimentation and possibility, which we tried to observe by providing eighteen avatars that were modifiable, copyable and transferable, thus giving total freedom of use to produsers. They ranged from the realism of ‘Godiva’ to the improbability of the ‘Chart Man’, without yet become completely abstract – without losing their metaphorical dimensions.

In this context it seems to be more appropriate to speak of produsers instead of a public, because the relationship that the visitors to the project had with this project was one of creative participation, which was indeed a crucial component of the project. In the note distributed with the avatars, we invited people to participate in the project with their derivative work, by sharing it with us in the Meta_Body groups on Flickr and Koinup. We also noted that the works to be displayed in Austria would be selected form these groups, and we would not exhibit the "original" avatars we provided. Instead, only the derivative work of others would be on display.

A total of 120 works were selected and presented as virtual photography or machinima, with a total of 80 people integrating the project Meta_Body in ‘AMIW’.

We tried to be as inclusive as possible in our selection, and not to base it on criteria of personal ‘taste’, instead trying to sample the different sensibilities and cultures in the art of the metaverse and the different approaches to the original avatars. We included both pure, unedited virtual photographs of the avatars, and photographs edited out of world, as well as digital collages, stories based on avatars, and machinima. While some were interpretations of the original avatars, others documented their transformation, achieved by mixing and customizing components from the supplied avatars, and sometimes adding components external to the project.

In Tim Deschanel’s proposal, for example, we see a mixture of one of the avatars, Chart Man, with external components, but photographed by a third person. Eupalinos Ugajin designed this reconstruction of the avatar, but Tim Deschanel photographed it. This image brings to the fore several questions about authorship,
originality, creative process and even the concept of a work of art. What is the work? The avatar we distributed? Eupalinos Ugajin’s avatar? Tim Deschanel’s photography? The project ‘Meta_Body’ with a distributed authorship? Or are all these artistic moments in themselves to be considered in isolation, or integrated into the overall project?

Figure 7: ‘Pipiua rethinking herself’, virtual photograph, Catarina Carneiro de Sousa, Second Life, 2012.
Conclusion

Playing in *Second Life*, in its *paidia* dimension, for us is still very much like playing with dolls – a tension between fictional and factual, in a world were space itself is conceptualized, not referring to an actual space, but evoking a *potential space* that resides within our imagination.

Here we can construct our own dolls, not only through the manipulation of the interface of a particular software, but also by uploading our own content, which sees to it that a vast diversity of appearances comes about. This type of highly user-dependent avatar design in the metaverse would also appear to have a great impact on how embodiment and creativity concur. Here creativity is a shared process. For us, CapCat Ragu and Meilo Minotaur, it happens through collective creation, brought forth through a high level of intimacy that is part and parcel of being mother and daughter. However, there are other ways of sharing such processes, and distributed creativity, which involves sharing one’s designs to be rebuilt by others or designing one’s avatar through someone else’s creations, may well be one of the most potent forms in which such activities come about by becoming what Bruns calls *produsers*, creators who change places between users and producers throughout the creative process. In this way, the avatar, a *performed* and *semioticized* body, becomes open for metamorphosing, with a potency of transformation, and the freedom to reinvent itself.

We will continue to pursue the challenges behind the looking glass of the metaverse; we will be questioning virtual space and body and we will be joyfully sharing our experiences for others to experiment upon.

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**Contributor details**

Sameiro Oliveira Martins is a Portuguese sculptor and ceramicist, who has participated in numerous international group exhibitions, including Pink Lotion and Nómadas in Caldeira 213 in 2000. As an artist she made a transition into the metaverse in 2008, where she is a very well-known artist whose creative output is brought forth through her avatar Meilo Minotaur.

Catarina Carneiro de Sousa is a Portuguese artist who is a founding member of the artistic association Caldeira 213 and the artistic and feminist collective ZOiNA. She has exhibited collectively since 1997 and individually since 2005. Catarina Carneiro de Sousa joined the metaverse in 2008, where as the avatar CapCat Ragu she has gained rapid recognition for her artistic work.

**Note**

1 Lyrics by Sjón.