3D real time: the artists non material worlds.

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Abstract

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1. Introduction

An Art project journey begins with a question, an idea born in the mind of the artist in a unspeakable way; like a hunch. Sometimes this idea or concept can appear directly in the form of a draw or the representation of something. It can also be a text that explains the artist intentions. But the question must be defined and set before a definitive art piece. For the painter, the search to define his masterpiece can be seen on preliminary drawings, for a sculptor this testing will be accomplish with small scale modelling, and so on for the different types of known art and artists or even new kinds of art. Each artist will use his expertise in order to approach and define the guidelines that will construct the final masterpiece.

Art is well known for giving complex messages to public, messages easily misunderstood. One of artist goals or paradigms is to propose content that will create different individual messages and/or feelings on spectator, but always logically related to his vision. In relation to digital Art install, things can get a little more complicated and more difficult to parameter and to be accepted by art community, if the piece include virtual worlds to explore and if it is on line posted on the Internet. To be honest, on line digital art, specially 3D real time (3DRT) is not really accepted as a contemporary art form by art critics and amateurs. Numerous reasons can be given for this, but undoubtedly one of the most important one can be the lack of interest that Art gives to interactivity as computer permit us today.

3DRT has been tested for years on install pieces but not always with great success. Artists like Jeffrey Shaw[1] or Maurice Benayoun[2] had explore these virtual universes for more than a decade, without been recognized as contemporary artists equal to some contemporary art stars like Jeff Coons[3], Matthew Barney[4] or Bill Viola[5]. Their digital art proposals haven't reached yet the contemporary art status and market circuit because of the difficulty to sell this kind of art and to see their creations as art pieces. Besides hardware technical problems and software ones, digital interactive art reveals the difficulty that interactivity has to be consider as part of art. To be more specific, art world sees art as a contemplative activity where interaction can't be consider. Artists will fix their idea in time and space and spectator will participate by seeing artist work. Of course fixing in time and space has been evade by giving multiple sense to image with abstract art or setting lifetime to art pieces like in a performance, in land art and more recently in video art. Interactivity in art is a subject that belongs to philosophical art analysis but quoting it allows us to explain the evolution and steps of "Culture is our crew"[6] the project we will talk about. Understand this conflict between art forms is important to understand his final digital evolution.

The purpose of this paper is not to justify the existence of on line interactive digital art as a valuable art form,

that can be compared to more standard art forms, but to share the experience of creating digital art spaces that will maybe never exist; the artist non material worlds.

First we will describe the 3D Real Time on line art piece "Culture is our crew" by French artist BEN SM[7] his intentions with this masterpiece concept, then we will explain the evolution of the "Culture is our crew" into a digital art form and why using 3DRT completes the piece in many different ways. To conclude we will asks ourselves if virtual 3 dimensional worlds are worth being explore by contemporary art, not just as a new media but as medium itself like happen with video in the late 80's and why we can think that this kind of 3DRT on line art will be more and more frequent in the near future thanks to Open source software like Blender or the Gimp. We will ask ourselves if 3DRT is popular and accepted in order to achieve his art status.

2. Communication society expansion and influence on information: Dematerialization

Often an art project is a collective creation that nourishes itself from each member expertise. The art piece takes life and becomes her own master, guided by the result of confronted ideas and discussions. In this case we are talking about a project that was meant to be just a model of what could be done.

An artist imagines a concept driven by his political background, cultural feelings and thoughts and proposes to another artist a partnership in order to create a 3D real time model that could help him find partners who will provide the needed objects, space and materials for the art install. The install "culture is our crew" (Fig 1), will be composed by a tuned car, a Citröen Xsara Picasso, with a competition sound system broadcasting "France culture" continuously, placed in a cultural space, like a museum or art gallery.

The install concept finds it's origin on the loss of direct representation content in mass media images. Its a critic about contemporary art and how cultural object looses his culture status by using new technologies and gets democratized by laws of market, creating media values and becoming itself a multi-semantical media object mixing all cultural layers in one, itself. It will become art because a population wants to consider it as art but not because it contains a concept or a thought in itself, just because his aesthetic has reach a point of maturity allowing a judgement between beauty and ugly, but remaining empty of content.

The image itself doesn't mean anything without the symbolism it disguises; the content. For example, on car advertising the representative sign will change from exposing technical features to narrative mysterious scenario full of male clichés, you won't buy a car for the service it gives you, but rather to get laid or to have a dangerous life; on energy retailer adds, you won't buy electricity for it's price, but you buy a way of life, comfort technology, without thinking about the means get it produced, even if this includes wars or

Fig.1

environmental irreversible damage; you even see this on politics, when you choose a president for the charismatic figure it represents and not because of his government strategy or program, you don't vote, you choose an image. But what can be surprising is that this kind of aesthetic triumph is also seen on art itself.

In this case our universe will be car tuning, a way to show cultural background and richness completely forgetting other art forms and aesthetics, becoming cultural totalitarianism. Car tuning is just an example among many others of the new cultural imperialism, where the idea is to dominate other art forms by judging them with their own codes and values. This tuned car "masterpiece" is confronted to the institution of Culture, represented by well known French radio frequency "France Culture", who will play the role of the antagonist power. "France Culture", born in 1963 is a public radio dedicated to culture and knowledge, as point out his presentation text, but that receives strong critics regarding its instrumentalism of media towards a specific aesthetic. Establishing car radio as link between this two antagonist universes seems appropriate to produce strange analogies. It is a representation of class struggle where the tuned car image belongs to popular classes and the institution that imposes what is and what is not culture will be "France culture" programming.

3. 3DRT for virtual experiences on line

The newest use for 3DRT is MMORPG[1] video game streaming. Meta Universes, possible thanks to exponential speed on download/upload data and computer power, proposing another dimension where you can play, make businesses, socialize and even have virtual sex with people from all over the world. 3DRT is even used today to sell clothes or computer pieces, for education, for medicine and even war. This world wide streaming is evolving and changing, its future still uncertain and full of surprises. As a visual media it's aesthetics had been towards photorealism and strongly linked to video games, where the cultural proposal has always been between content or just fun.

3DRT offers an enormous range of possibilities regarding it's diffusion and possible universes, because it's a media that can re-invent itself without limits using the calculating power of computers. Regarding art, virtual universes allow spectator to participate in their own art piece experience, understanding symbolic codes and resenting an ambiance[8].

For "culture is our crew" virtual universe lets us see a tuned car, the one we want, with the colors we want and even better with the radio we want. The final piece, in a virtual space, in his final form, as the concept creator imagines it. Once you realize that between the constraint of mouse, keyboard and screen you can set all parameters of the universe you propose you start to think that maybe you won't be needing physical reality for your project after all. Maybe the virtual simulation is an art piece by itself. You can continue to add events to your install, or details that will serve the message you want to give; possibilities. In this case we can make links to other art pieces in other media format, to more content. You can even ask other artist, with different art expertise techniques to participate as well. Avoiding the idea to become a virtual art gallery, "culture is our crew" proposes a space that can be invested in the purpose of the install concept and where all risks and difficulties added by reality material and logistics can be just completely controlled; just seat and enjoy.

3DRT as a broadcasting media object represents a new way to share content and propose new services as well. Without being to much optimistic about its evolution we can imagine that in a really near future internet aesthetics will change, proposing new kinds of interface based on 3DRT technologies. Regarding art we can hope this technology will open a new gate for contemporary digital artist to reach their public in a direct way,

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1   Massively Multiplayer Online Role-Playing Game

dodging normal art circuits and protocols, without needing physical institutional places very often indifferent to digital art and digital artists. Even if this revolution won't be able to change contemporary art panorama and its commercial circuit way of operating, it is certain that this new way of looking into art will give unknown artist the possibility to propose their projects in a new way, escaping from the boundaries imposed by economics and lobbies in art.

The most significant change among all, achieve by on line art, is to be accessed at any time and from anywhere in the world, of course by the means of a computer and an internet connection. This change in broadcasting art is important, because it places in the centre of all art itself and the artist concept. What this means is that on today art logistics vision, an art piece doesn't exists if it isn't shared with others, and the only place where art can be shared is an institutional, well recognized and categorized physical space, ruled by people who knows art and decides what's art and what's not art. It isn't here a matter of criticising the curators work, because it's function as an art filter is important for institutions, important art galleries or museums to maintain a high profile standard of what's art. It's certain that this way of looking into culture creates a wall for new artist and new content, making art world completely dependent on institutional opinion about art. Without being too critic about this matter we can find a kind of perversion in this dependence, because the artist is forced in a certain way to create art pieces that will be parameter by the institution point of view or by the "in vogue" aesthetic of the moment. It's true that this is the way of the art since all times, and that very often great masterpieces had been at the beginning created to please art sponsors. The most known example could be the DaVinci's "Mona Lisa"[9], but this same example also testifies of the artist struggle to secretly add content and message in his work as a way of escaping from this imposed and merchant work. As well known, this portrait was supposedly commanded by a rich and powerful Italian who wanted to preserve in time the beauty of his wife, but recent history discover seems to point out that this portrait will be DaVinci's auto portrait and that the painting will eventually hide secret messages. It's so important the number of rumours about this painting that several books had been written and even a film with Hollywood super stars has been made.

To continue with 3DRT on line impact on art, one must say again that this tool and way of broadcasting art, places in the centre of all matters, regarding the masterpiece, art concept itself. Between 3DRT aesthetics and hardware boundaries "Culture is our crew" has the chance to evolve from a concept to the virtually real, and to expand it's possibilities of diffusing related content and itself escaping from art institutional circuits and from material constraints. Explore the possibilities given by new technologies is a privilege that was reserved for high-tech experts and professionals, but today open source once again opens the Pandora box of creativity,

4. 3DRT on Art today

As we quote before, contemporary art struggles between concept and aesthetics, but rather to find a place where both can be found, art becomes an investment in time, and proposes nothing else than personal artist experience and an investment to art merchants. Without being to much radical in what art should mean, it must certainly means much more than just a piece of money represented by a support. But does 3DRT can escape video game cliché without betraying the real playful and interactive educative intentions both stand for? Could art see anything else than just entertainment on 3DRT technology?

Art today is not trying to become an interactive experience rather than to just produce experience. This means that art, faithful to its definition, if we can't really have a unique definition[10], must produce

"something" on spectators. This something word stands for the image impact produced by the ART piece. But how far, and what does exactly impact means?

If we look over in time, very few artists have taken the risk to use 3DRT new media on their work. Very often art critics doesn't try very hard to understand new forms of art or even new forms of using the know media. As an example that rather to make us understand the world of art critics, makes us believe that they can sometimes just be completely mistaken in their critics, we can observe Van Gogh's artist career. How can the entire art critic community, contemporary to Van Gogh's work, be so misplaced and wrong about his work and place on art history and influence? We are not trying to get in trial art critics, but to point out what art critics should do, and this among all, is to discover and defend new forms of art.

Let's see what happens with 3DRT art forms today. First we will take a look on Jeffrey Shaw 3DRT work. The "Legible city" was at first conceived to navigate among a virtual city where words compose the city architecture and by using the gym bicycle plugged interface, we could visit places on this "legible city". As Jeffrey Shaw said, his real intention with this piece was to propose a new way to navigate a virtual map. The finality as he imagine was to propose this kind of interface to visit museums or large expositions and even entire cities. Is certain that Art isn't an interface or a graphic design issue even if those are applied forms of art, but we have to be aware that art does really often get inspired by all kind of applied arts, and even sometimes they become an art movement, just take a look to Pop Art.

Other Jeffrey Shaw work using 3DRT is the "conFIGURING the CAVE" where the interface is a human size puppet witch can be moved around and placed in different postures. Each movement and position has an immediate reaction on streamed audio and video that surrounds the piece. In this case, spectators will experience a travel into human senses psyche without really knowing it. They just move the mannequin, if they dare to touch an art piece, and enjoy the ride. But again, can this senses experience be considered as art or is just for art critics a new form of psychedelic video interactive Disneyland ?

Maybe among all 3DRT artist, the one who has really propose a new kind of interactive art experience, and has, from a personal point of view, achieve a mature and politic content without falling on mere entertainment clichés, is Maurice Benayoun with his "World Skin" 3DRT experience, where spectator becomes a photographer on war field taking pictures of his choice and printing them to take them home as a 3D war experience souvenir.

If we want to take a closer look to what 3DRT proposes as an art or art form, we have to look into video game new concepts and interactivity. But we have to be careful to avoid falling into aesthetic matters or to be misled by video game producers publicity and communication, we have to look into serious games to have an approach of what political gaming art could become or has just born.

Regarding art, the research has been focused into a new kind of cinema. A future cinema that takes it's inspiration from the pioneers of the seventh art; the total cinema[11]. Both of the quoted artists have recently experimented with a new kind of film semantics where the spectator is the story master, evolving into a pre-setted story with multiple possible endings. Jeffrey Shaw is still working on this concept with the T_Visionarium concept, where groups can explore simultaneously different broadcasting channels.

5. Conclusion

After describing in a few words the art install concept by BEN SM and how a 3DRT model can in fact complete his work, we have oversee the exponential use of this media on Internet and it's possibilities regarding on line art. Then we have describe some of digital artists experiences with 3DRT as an install tool

for their work making an emphasis on difficulty to use this media on contemporary art circuits. To conclude we have to explain why today 3DRT is more affordable for everyone, specially for artists, and why we can hope this kind of broadcasting art, could in a near future, become a recognized and solid part of art structure and ensemble.

On chapter 4 a brief description of 3DRT use on art install, allows us to oversee some experiences by some of the most 3DRT popular artists on today art scene. Maurice Benayoun and Jeffrey Shaw have indeed placed very important bricks of the digital art base structure and have by this means make a place for digital art on art scene and history. But one has to understand that this exceptional chapter on art wouldn't be possible without the merging experience of CGI technical research and art install experiences. If these great digital technical artists haven't be part of the university world, maybe their masterpieces and research will have never exist. Their work is certainly the product of their concept and knowledge, but the concrete existence of it, is the work of numerous people and software development teams. Enormous budget has been needed in order to produce and to test 3DRT digital art installations, not only to pay the engineering researchers but to pay the hardware and to create it. This symbiosis is a certain success for the university world, because all of the produced methods and protocols to ensure the correct functionality of the experience, are in fact used in other areas like medicine or neurology sciences and everything that will need a 3DRT simulation. But how an artist interested on 3DRT, that doesn't belongs to university world can today produce 3DRT? How someone with no funds at all can dream to create 3DRT models and propose new kinds of art experiences?

If we believe on Moore's law[12], in the future everyone will be able to benefit from computer power calculation, because the more powerful hardware will become, the cheaper old hardware generation will be. The only way to develop and sell new computers is to ensure to people that their material is the latest on technology, a technology that becomes old in a matter of months. Regarding internet access, the tendency is to have bigger and more reliable streaming, that include telephone services and TV and radio broadcasting, all accessible from your computer. Internet art and particularly 3DRT on line art will become more usual in the near future.

Once we see that computer world is becoming an essential part on our lives, we understand that software becomes the most important tool to benefit from computer development. As well known proprietary software, restraints a large part of the population from creating any kind of media related to computers. From text editors to complex analysis data programs, proprietary software makes the difference between creation and simply non-existence. Of course to contour the non-existence problem, one can always think about piracy or restraint licenses in order to achieve or just begin a project, but these possibilities aren't always the wiser choice. The only way to produce media without proprietary software is to use open source programs and to participate on open source forums and websites. Regarding 3DRT, today things have change a little thanks to Blender[13], a non proprietary software under GNU license[14] that integers a 3DRT render engine with physical gravity simulator and some shaders to have a better image rendering. This software was classed first on the 2006 Roncarelli report on the computer animated industry[15] and this sends a message to software companies around the world. Blender offers to anyone the possibility to create 3DRT content and to export it to numerous formats including X3d[16], the 3DRT format for Internet. With the help of X3d editors, some in open source GNU license, common people can produce interactive 3DRT for internet at a really interesting price, witch is the computer hardware price. This fact doesn't means that university research and development has become obsolete, or that their budget will be reduced, but that digital art will benefit from a

powerful tool to create virtual worlds and new forms of art. For the proprietary software industry, these new free tools must encourage the creation of new kinds of licenses like an art one and new software in order to maintain the public interest. Our only way of knowing the public acceptance regarding 3DRT as an interface is to look into video games as an entertainment media and make the remark that the incomes produced by this industry have, in this decade, reach more importance than those made by the film industry, in a few words video game industry is bigger than film industry. And that's why we can say that 3DRT is becoming more and more accepted by public. For the Internet, the fact to propose today 3DRT virtual universes can led us to think that in the future our web surfing will be in a 3 dimensional universe and that computer's interface will certainly change in the most radical way.

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