"VR as an ultimate tool for fairytale storytellers." Gerrit Rietveld Academie Golubev Sergey VAV4 2016

Fairytales are a type of storytelling, known to us from the beginning of time. They are stories which used to be the expression of creativity, mostly involving the pure fantasy of an author. Basically fairytales are stories that range from the origination of folk lore to more modern stories defined as literary fairytales.

"A story that differs from an oral folk tale written by a single identifiable author can be characterized as simple and anonymous; and exists in a mutable and difficult to define genre with a close relationship to folktales. The oral tradition of the fairytale came long before the written page. Tales were told or enacted dramatically, rather than written down, and handed down from generation to generation. Because of this, the history of their development is necessarily obscure and blurred."[1]

But what happens to this notion nowadays? In a society overwhelmed by technologie, where human creativity constantly generates a full range of fantasies. Being highly educated, surrounded by machines we lost the sensitivity for this particular genre. At the same time the continuous stream of the information creates it's own dimension, with no place for classical understanding of fairy tales. All of this makes it impossible to simplify the prospect of what is happening.

People got addicted to media which provides them with the possibility to be somewhere else just by double clicking a link on the internet or watching a movie. The advent of cinema has meant that such stories could be presented in a more plausible manner, with the use of special effects and animation.

Mostly fairytales have been filmed for children, like in Aleksandr Rou's retelling of Vasilissa the Beautiful, which was the first Soviet film based on folk tales in a big-budget feature, or many of later Disney's works. Others used a different way of using the conventions of fairy tales by creating new stories with sentiments more relevant to contemporary life, as in My Neighbor Totoro, The Labyrinth, and the films of Isao Takahata.[2]

Other works have retold familiar fairytales in a darker, more horrific or psychological variant aimed primarily at adults. At a certain moment the film industry became a solid media for interpretation of old fairy tales. Also, if we look at the blurry history of fairytales we could probably say this seems to be a natural evolving process.

That's why we have to admit that the old-fashion ways of presenting fairytales are no longer sustainable. In fact, other media influence its interpretation and lead it to different readings of the stories. Even film as a media for storytelling can also be replaced in the future by something else.

The first 360 animation made for VR experience.

People are desperately looking for new media to make stories more interactive, and to be able to dive deeper in the ones they like. The boom for 4D and 5D cinemas, depicts the fact that the new technologies pushing the limits of peoples will to make stories on the screen more believable. People no longer want to just to observe but they want to explore. Fortunately, what was science fiction in the 70s is now used on daily basis.

This racing of technologies leads to dramatic changes in our daily life, which determine new positive and negative aspects of it. Nowadays, our society creates entire digital networks, and every year rises the awareness of the destructive influence of technology on people, which may lock them in their fantasy world. You can clearly see this in modern Asia: especially in countries like South Korea or Japan.

If we look closer at Japan for instance, the notion "Hikikomori" is a Japanese term to refer to the phenomenon of reclusive adolescents or adults who withdraw from social life, often seeking extreme degrees of isolation and confinement. Additionally, the Japanese government estimates that 1.55 million people are on the verge of becoming Hikikomori.[3] Most of those people spend all their time on the internet or playing video games. The lack of physical contact is replaced by alter-egos, avatars, making them lose the capability of distinguishing between reality and the digital world. In fact they create a new sort of society, albeit a creative one.

And the notion itself became a source of inspiration for storytellers, those people became characters in the media they were associated with - the internet. And from here on spread all around the world. But this is only a genre and if we ask for a media that will produce the new generation of stories what it would be? Naturally each medium evolves from another and was inspired by other's. Basically we see a lot in common in between most of them, such as with

books and sms which both give you information consisting of text. However the experience we get is totally different. The actuality is the significant value which determine the media as it is. Without having access to the virtual highly technical journeys, people were able to see magnificent pictures in their dreams where they could take an action and be the participant. However, what is more important is that those journeys are unlimited in terms of creativity. In modern times, dreams have been seen as a connection to the unconscious mind. In many languages the word dream is used for defining two notions: when people sleep they see dreams, but when they are awake, they can still dream about something.

"Dreams can have varying types, such as being frightening, exciting, magical, melancholic, adventurous, or sexual, they range from ordinary to overly surreal and bizarre. The visual nature of dreams is generally highly phantasmagoric; it means what different locations and objects continuously blend into each other. "[4]

In fact it's all about placing yourself somewhere else out of this dimension in relation with your experience, and this is how our fantasies works. This is where a lot of fairytales, myths, and stories were inspired from . Also it's important to mention that a fairytale is a story within the fantasy genre. Fantasy, on the other hand, is a genre in itself. Compressing and merging reality and fiction, the pure fantasy of an author is based on life experiences and limited only by it. That's why with the rise of technologies, people started dreaming about the ultimate tool to bring storytelling to a new level. And actually dreaming is not only the notion we face since we are born, this is what keeps us together. Two people dreaming about one thing can easily become best friends or for instance, those hikikamori create their own closed societies where they can be among people like them. But even regular people who live in the real world constantly dream, and the only difference is they don't cross the border like hikikamori do. But even a nicely written book or fantasy movie can make them feel empathy very easily.

However we must admit that fantasy as a visual content triggers more attention. Visual content communicates valuable information in a visual way: a pretty simple concept. Humans have been using visuals to communicate for thousands of years. The Chauvet Cave paintings are said to be 20,000 to 30,000 years old. [5] While the medium has evolved, the idea is still the same. People use visuals to tell stories. Are cavemen the original content marketers? I don't think so. But I love the idea of a shaped information painted on the walls of a cave in order to communicate the benefits of fire or the wheel.

The answer is very simple - there are stats on how the human brain can process images faster than text.[6] But when it gets down to what really matters, visuals help tell better stories. It's proven to work, we've been doing it for thousands of years. That's the reason why films are so much more catchy than books. When reading books your brain is doing a hard job creating images for you, with movies images go straight to your head. Faking all the movements and smells in 4D cinemas is all made to deceive your brain to place you in the movie.[7] However it does not give you control over your experience. So the ultimate storytelling is only possible with you taking action.

The new technologies such as VR change the perspective of storytelling dramatically. It brings up the notion of the modern fairy tale. I suppose this represents a new step for people to experience what we called science fiction, if the goal of storytelling is to take you away to an abstract dimension, where a story is taking place, then the VR technology makes it objective.

If we look at the history of VR development we would probably find it's very first try outs like "Osmose" by Charlotte Davies made in 1995. Departing from manually based interface techniques, Davies managed to create an unique VR experience based on fantasy and mobility of the viewer developing the concept of involving more organic and instinctive approachs in Art. Made by using the most innovating at that time 3D computer graphics and spatialized 3D sound with a real-time tracking system. The work was absolutely immersive and hands free, so you could easily walk around Osmose environment where a motion tracking device responded to your location and created an image on a head mounted display. This was a great success in Davies career and became one of the most ambitious and celebrated works made by him, which made steps far ahead of it's time, forecasting future VR development.

The artists started discussing, innovative possibilities of VR already in the 1990s, before the technology was outshone by the invention of the Internet with its fascinating possibilities. However the Oculus Rift headset appearance marks a pivotal moment in VR's development. Davies commented in 2015: "I have been waiting a long time for such technology to reappear."[8]

Talking about the Oculus Rift , I think it's important to underline what it is not the only opportunity on the market of virtual reality systems, however it is said to be the most promising at the moment. Disregarding the technical aspects of the device and what makes it different from HTC Vive or Sony PlayStation VR for instance, I think it is interesting to say a few words about how this device appeared on the marked. Oculus proposed a Kickstarter campaign in 2012 to fund the Rift's development, after being founded as an independent company two months prior. The project proved successful, raising US$2.5 million from the campaign for the development of the product, an interesting fact is that one of the biggest sponsors became the porn industry. In March 2014, Facebook purchased Oculus for $2 billion.[9]

"Osmose" by Charlotte Davies 1995

Since that period of time a lot of work has been done and VR is no longer pure technology with limited possibilities. Of course you may still need some help to handle some technical aspects

but it's also possible to make it yourself without a team of software engineers. Daniel Steegmann made an artwork called "Phantom" shown in NYC's New Museum for Contemporary Art in 2015, which fully immerses viewers in an absolutely stunning and miserable realm.[10] As the New Museum noted, it's a full constellation map of the particular forest area.
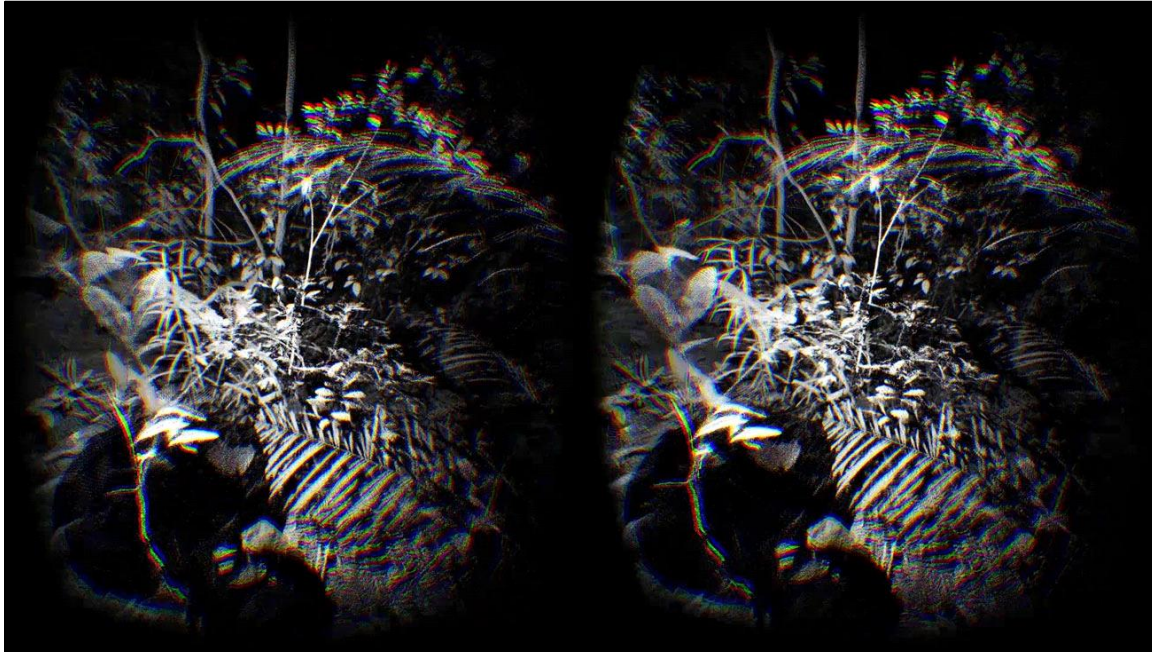
Daniel Steegmann "Phantom"

I find the subject very speculative, at some point it might be connected to the idea of escapism, however this kind of traveling and the actual reconsideration of breaking borders between both realities itself is possible to deal with even now. As we could see in the past when people got easily addicted and consumed by visuals in comic books, films and games it does not have to be perfect visually to be highly appreciated by the public. The human brain just needs the right surface to create the rest of the story.

Everyone's first go on an Oculus Rift is a jaw-dropper because its immersive power is so strong. Literally, you can't believe that you're really standing in this other digital world and there's only a small, rational part of your brain to argue otherwise. But that effect fades the more regularly you use it. That's why we already can say it works and it will become better in just a few years. However as I mentioned before the awareness and the wonder of this transition we are now witnessing gives us a unique experience and the opportunity to depict the notion of a new era in storytelling. Imagine an empty exhibition space, where only you are the participant. You are only equipped with a headset which dictates what you see, this gives you a feeling of privilege. You have a personal and private interaction with the work, unlike old-fashion paintings which are open for every viewer at any moment in time. It creates a division between people who can or can not experience the same space equally.

But, we also can't say that two people with headsets in one room can experience VR equally, unlike a movie you can walk and observe objects on your own, which makes it so special and

fascinating for a viewer. We can model our whole journey into a 3D virtual world and allow the viewer to step into it and follow our footsteps if we want, or even explore in our own sandboxed, non-linear ways.

You might want to touch something which is not even real or not here. Not everything you might see has a strong connection to reality, in fact The VR Museum of Fine Art which is based on the Internet gives anyone access to a world wide array of known master pieces .[11] I wonder when it will become an ordinary thing to invite someone to go with you to the VR museum, or just imagine a whole Internet exhibitions and events. Now it mostly works for people who cant show up in galleries for some reason. The whole idea of the VR is to deceive. It is surrounded by atmosphere of innocent enthusiasm, since so many organizations and students are involved around the world in the "first touch" to stimulate the development. However when the market is ready to provide more options we will see more opportunities in the virtual journeys, which will definitely lead to the cases we mentioned before.

That's why I think that not only is the virtual traveling itself an attractive tool to work with, but also that the intentional choice for this particular activity is intriguing. Therefore I think that contemporary art is taking it's place to reflect on it by creating VR story environments and narratives.

But what happens if we blend both realities? We already started talking about it when we "wanted" to touch something unreal, but what if we could? Iain Nicholls who is known as a fine artist switched from classical painting to a 3D approach. He made VR his new canvas thanks to his Oculus Rift-powered installation at London's Herrick Gallery, known as "Cardboard House". Collaborating with programmer Tom Szirtes – a colleague from Sega he worked with and now director at digital creative agency Mbryonic – Veil is what Nicholls confesses is something of a light-hearted experience. The reason why I love this example is that it represents not only a clash between fantasy and reality. It is the result of hard work and of two different perceptions since it's made by a former painter and a programmer. So, if we simplify what is happening in front of the viewer, we can see a plinth upon which is sat a roughly made cardboard model of a house. Put on the headset and that's exactly what you see, only in digital.

In fact you are in the same gallery space around you, however your normal visual experience of the object is changed,the tracking system is feeding back information into your VR headset, creating an environment where everyone around you is excluded, you also can spin the house by twisting a lever on the right side of the plinth which brings to us a bit of interactivity and control over how the artwork is presented.
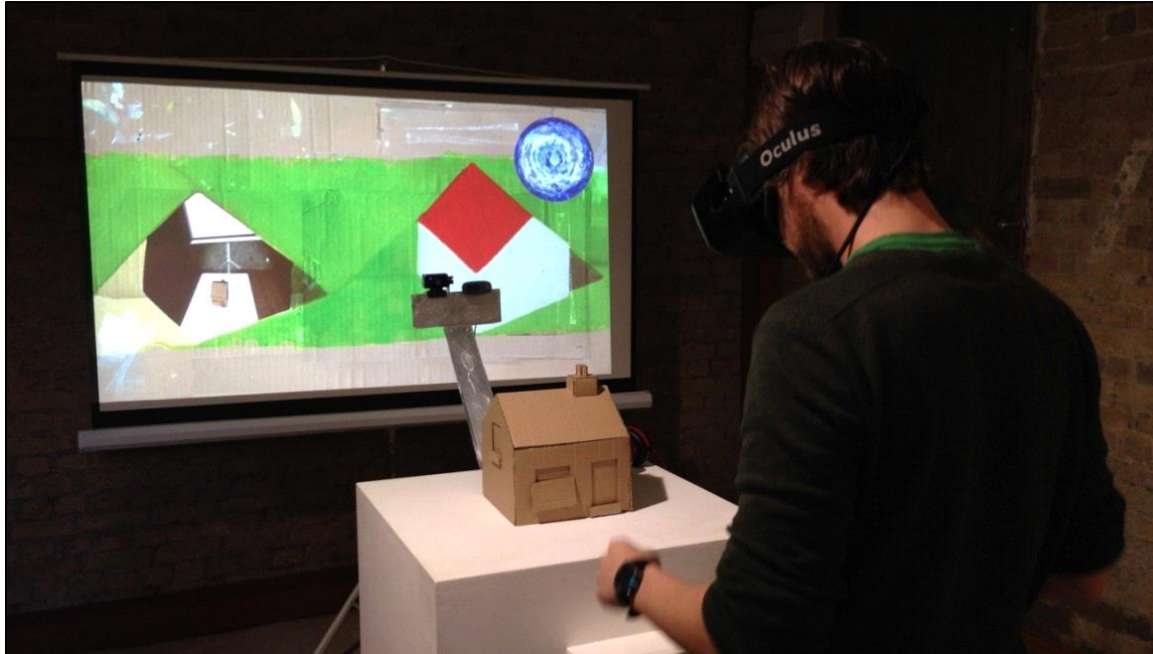
Iain Nicholls "Cardboard house" Veil exhibition. 2015 London.

I find a comment on VR from Iain Nicholls about his work rather interesting :"With laughter and smiles from all that step into Veil, Nicholls jokes that it's the first time people have appreciated his work but, as he freely admits, the positive reaction could just as easily be from the novelty of the immersion of VR virgins rather than from his cleverness and creativity. At the moment, the typical demo is going on a roller-coaster. It's simple and effective and it's about trying to wow people. It's like early 3D cinema throwing things in people's faces and we didn't want to do that."[12]

But talking about Iain's work we actually step into something we did not mentioned before. Combining actual objects, spaces, surfaces with digital projections is not completely new and already established in the contemporary art scene.

Before diving too deep into the virtual reality there is still a pit stop half-way through that is still incredible, and gives you a special taste of VR, it's called "Augmented Reality". As key examples of the ways in which AR creates a unique spatial experience, I will mention three different works of art made by using AR, which significantly, expose also the essential role played by the interface in providing this experience: Living-Room 2 by Jan Torpus, Under Scan by Rafael Lozano-Hemmer and Jonathan Ravasz and Filip Ruisl at "Kitchen Budapest 2016" in which convergence appears as a fluctuation between reality and fantasy.

When it comes to AR, as seen by the works depicted, there are three main categories of interfaces that allow the user to communicate with the device. These three interfaces can either be handheld, attached to the face or are done through motion tracking. Depending on the interface and technology behind the project, the users experience changes. However, we should also put into consideration the environment in which the user is experiencing AR.

Of course it's not completely the same to have an immersive but solitary experience, or a mobile and public experience of an AR artwork, but it keeps the same philosophy. I think specification is only important when we really, want to understand how big the notion is and how in different ways it can be used to serve artists creativity all around the world.

The first remarkable example i wanted to frame with the same problematic of creating a provisional spatial continuum between reality and virtuality like in Iain Nicholls's "Cardboard house", but this time in a non-immersive fashion occurs in Rafael Lozano-Hemmer's "Under Scan" (2005-2008).

This work, which is part of a larger series called Relational Architecture, is an interactive video installation conceived for outdoor and indoor environments and presented in different public spaces. It is a complex work that was created by combining different technologies such as : robotics, real-time computer graphics, film projections, and positional sound among others.

A powerful light is cast on the passer by in the dark. There is also a tracking device which is used to indicate were the viewer is positioned. From there, the work will project video portraits on the floor by the pedestrians feet as if they were shadows. These videos will then interact with the viewer moving and establishing eye contact. All this together creates a new level on interaction.13]

Rafael Lozano-Hemmer, Under Scan (Relational Architecture 11), 2005

Literally, one of the most interesting aspects of this work is its ability to create an experientially stimulating and conceptually cultured play between illusion and subversion of illusion which provokes us to ask questions about possible spatial continuity.

Also, you don't need a special headset, or to interact with a certain interface, as it's really open for the audience. It also turns the viewer into a participant because this artwork exists only with its viewer as an important part of it. The integration of video projections into the real environment in this case gives us an alternative reading between real and virtual.

Although being totally non-immersive, the work keeps us distant from real interaction, turns it into a mute dialogue between the present body of the viewer and the virtual, absent body of the stranger via the contradictory entity of the shadow.So we only experience the recorded video without actual interaction with the object in the video, which is not bad but leaves it unspoken at some point.

There is definitely a certain break between your perception of the real space, your absence in the shadow and the non-immersive, fully autonomous image of the projection.

Jonathan Ravasz and Filip Ruisl at "Kitchen Budapest 2016"

The second example of an AR artwork that engages the problem of real-virtual spatial convergence as a play between perceptual continuity and discontinuity, this time with the use of hand-held mobile interface by young artist Jonathan Ravasz. [14]

During his residency at Kitchen Budapest, with his friend Filip Ruisl, Jonathan has developed an application, reconstructing damaged, historically valuable buildings by using the technology of Augmented Reality. The app reveals the original architecture by projecting it over its current state, via the lens of a smartphone camera.

The users access the work through mobile devices at different exhibition spots of Budapest . Pointing the smartphone at the exhibition spot and moving around the room, the viewer discovers that a new, complex graphic is superimposed on the screen over the existing real objects.
Manipulating and merging real space and the virtual forms and graphics in an illusionist way, AR is able, as one of the artists maintains to destabilize the way we construct representation, redefining the perception on the spot.
It is important to mention that this type of AR is the most common and well spread across the mobile devices world approach in making an interactivity in it by using this technology.
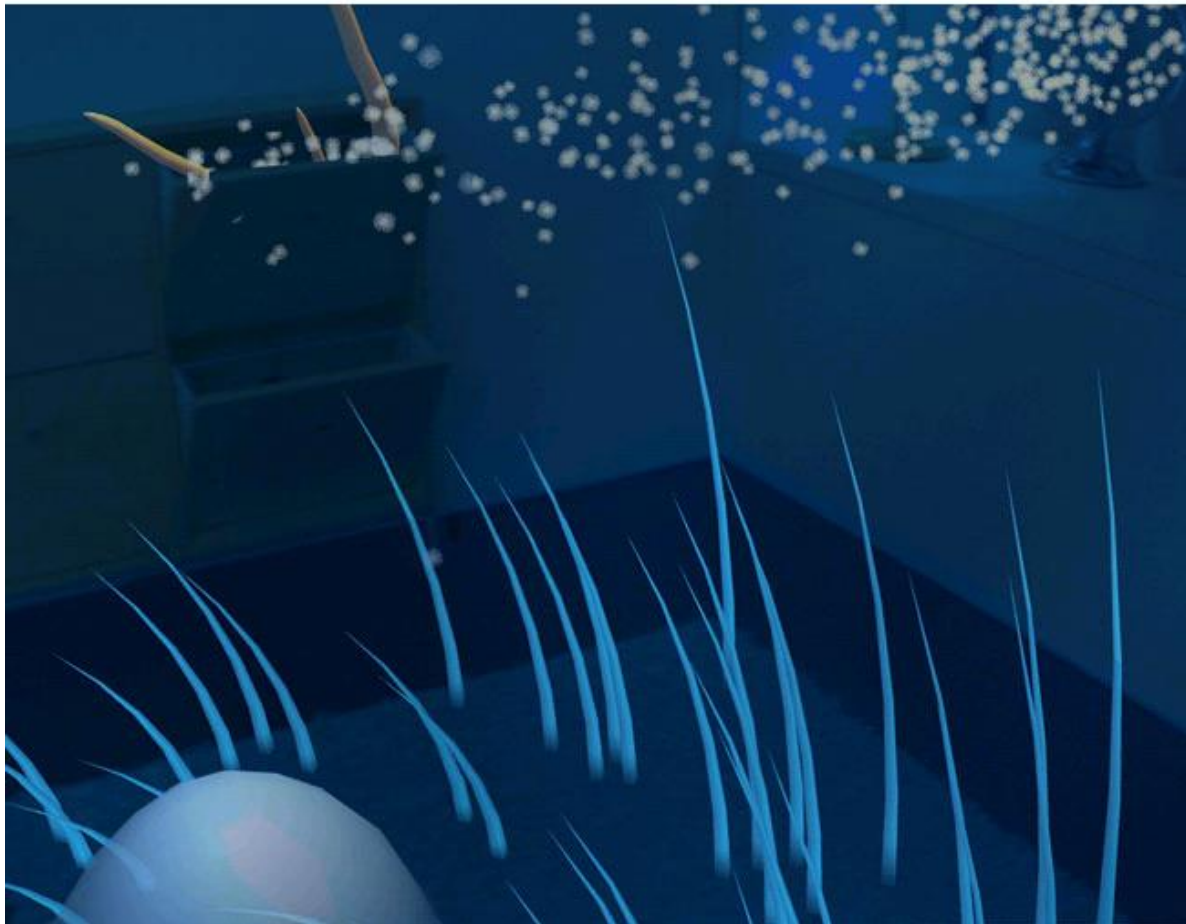
Jan Torpus, Living-Room 2 (Ecosystems), Augmented Reality installation (2007)

The last example of AR i wanted to mention is "Living-Room 2" an AR installation realized by a team coordinated by Jan Torpus in 2007 at the University of Applied Sciences and Arts FHNW, Basel Switzerland.
The installation works on an improved tracking system which allows the implementation of furniture placed in a space and domestic objects that are augmented by means of a see through

using a headset. The viewer is able to experience at the same time the actual space of the room and a collection of virtual graphics projected on it such as natural landscapes or strange creatures which "invade" the space depending on the user's choice.[15]

The user actually can choose different augmenting variants of the environment by interacting with both the real furniture and objects and the graphical interfaces by using handheld device which provide a virtual images in the visual field of the viewer.

A lot of attention is paid to the viewer's position in the room: a tracking device measures the coordinates of the participant's location and direction of view and effectuates occlusions of real space and then makes superimpositions of 3D images upon it, and that makes real difference in comparison with VR, since we keep the relation with the real objects.

It is important to experience the difference between subject and object, to merge real and virtual spaces, that lays at the core of every artistic experiment in AR. The fact that this distinction is never entirely erased illustrates the ambition to create not perfectly homogenous spaces, but modalities of interaction and dialogue" between real worlds and virtual images.

Moreover some people may argue that we no longer need such approach with decent VR technology, but then I would give you the example of theatre, which was not removed from our life by the TV boom that happened a long time ago. And it's not only a matter of philosophical discussion, between an artist who wants to put a viewer in a completely different dimension and an artist who works with actual landscapes or makes installations using real space. In fact it's all about different experiences, as one media replaces the other I am interested in the role of fairy tales in our lives, since we see that the whole approach to working with fairytales has changed. We see all kind of aspects of our lives represented by digital media creates new genres and new fairy tales.

As we can see AR is a real alternative to VR, however, what can bring them together is a sound experience which is as important as visual content in an art work. Here I'd like to talk about project of Gábor Pribék "M50". [16]

During Summer session residency at CAC Gábor Pribék with his musician friend Lajos Kolozsvári created a digital composition that interprets the streets of M50 as a musical score. The structure and units of the buildings are transformed into simplified 3D graphics, and a multilayered ambient music is designed for the specific locations in the area. Walking in the streets a user can generate a musical composition, an opposite of the linear playing of music associated with 3D visuals. This expands the original function of the space, transforming it into a digitalized audio-visual experience.

Gábor Pribék and Lajos Kolozsvári "M50" 2016

It is really easy to change the environment entirely by using VR, although for some people these sudden and overwhelming changes in how they experience their bodies can cause motion sickness and confusion.

The main idea is to make one work divided in two, with a strong connection between these parts. Actual walking with your smartphone using app and earphones on streets of M50 will allow you to experience geolocation based version, however the other one uses fully immersive VR, so it can be experienced only through a head-mounted display, controller and headphones. This project uses both VR and AR in one and each relates to other. This is not the first work in VR by Gábor, and I think it's important to mention that he represents a new generation of contemporary artists who initially focused on the technological approach in their works.

In fact artists should expand their expertise to different fields, such as psychology, architecture, sound design, lighting design and physics, in order to be able to create fully controlled experiences, guiding users in VR by shaping the virtual environment in such way. I think now no one can ignore the prospect of using VR and how it can be implemented to our daily life. Of course we should not abandon the classical fine art approaches but we should start moving in the open door in front of us.

If we only accept the fact that it is the entire way of thinking and looking that has changed, at things we can truly reconsider and redefine for instance classical painting from the new angle, because now painting in 3D using VR is real as never before. Not only painting : sculpting, performance etc. How performance can be made in VR? You just need motion caption detectors on the performer and a few pairs of Oculus Rift glasses and you can turn the person into moving fire or anything you want.

A good example of these simple body manipulations can be found "Sentient Flux" by Nicola Plant.[17] However instead of motion caption participants put a VR headset and headphones on and stand in front of motion sensing cameras. The viewer is able to see particles all around which mostly look like some sort of phosphorescent plankton. This was an actual source of inspiration for the art work after Nicola's trip to Cambodia: "I wondered what would happen if it could be recreated but the glowing particles actually respond sympathetically to you". So that's exactly what he made in his work: using the Oculus Rift we can see how moving the body viewers interact with glowing particles that flow around in movement.

VR art: Sentient Flux by Nicola Plant. Pic: Nicola Plant

Combining those techniques can create experiences that were not possible with just one of them. It asks more creativity and understanding of the process from the artists, and here we may ask ourselves if it goes too far and if you need assistance to make even a small try out? The answer is never simple, but we see quite a lot of artists involved with VR who came from different backgrounds. It became a normal thing to hear that artists combine their practice with coding. Moreover, a lot of "next-gen" artists are former programmers.

As an example of this "next-gen" painters we can have a closer look at Rachel Rossin. She is an artist who meshes painting and programming together. She started coding when she was 8 years old, just few years after she started to paint... In her show "Lossy" at Zieher, Smith and Horton she exhibited her art works, the name "Lossy" is simply explained by her talking about process of making "... the show is called "Lossy" because I lose parts of the image info after crushing the data and compressing the views. It's called "decimating meshes." It makes the final images cleaner but breaks or loses data in the process."[18] That also reminds us that it's not technically perfect at the moment and there is still place to develop. Rachel admits that painting

holds a different kind of space, and the richness which can't be found in any other technique. However, she likes working in both media, because painting like many other media gives an unique experience which can't be simulated.

GTA V, 2015, by Rachel Rossin. (Photo: Courtesy of Zieher Smith and Horton)

Finding the ways and accepting the rules that are given to us is an advantage for those young artists who dare to be pioneers in the VR development. Moreover I think developing VR and making use of it on a daily basis will change the meaning of storytelling dramatically. The whole mindset of artists should be changed to be more flexible and constantly ready to learn new technologies. Because it's actually hard to make a completely personal digital world come true. However the potential result is worth a try.

The reason why i compare fairytales and VR development is very simple. Fairytales are a genre of storytelling that has been known for centuries and never really disappeared. However, the old-fashion ways of representing content is no longer sustainable. Presently, we usually see fairytale characters in movies. The development from a simple written story to a book and after that to a movie is also common, this is what happened to J. K. Rowling's Harry Potter, which was initially a small fairytale for her son. I find this process common for VR as well, as a new

step in development. That's why I call VR the ultimate tool for the next generation of fairytale storytellers. That's why I'm connecting those two definitions and insist on making a strong relation between them.

I believe, when VR will finally become an ordinary part of our lives, it will be not only a source for new fairytales like many other technological innovations of the 20th century in already written and well-established stories, but it will be able to grant them and give certain reconsideration and remastering. For example, the well known games about Pokemon[19], which was created in 1996, was developed into books, animations and movies. Today it conquers the world with a new AR powered game, Pokemon Go[20]. The popularity of the game is absolutely outstanding, which makes it even more frightening, because so many people got easily obsessed with it and completely lost sense of reality. However I believe that this technology can be used in much more delicate way, such as making entire narrations which can be spoken only by using VR. For instance fairytales for kids can become much more interactive with AR where the storytelling process pushes the user to do certain things in the real world to continue a story.

Taking a step back, we see how fairytales as a genre in storytelling has influenced society and evolved during history, being a certain reflection of cultural and historical events. Being a result of fantasy and source of inspiration at once, they transformed from oral expression to movies and are getting more and more interactive with technological innovations. Nowadays VR and AR technology is definitely the potential-filled, un-explored field for contemporary artists who want to reconsider well-established approaches in the art of storytelling. Naturally, VR combines almost every known media and is directed at exploring the unlimited possibilities the interactive interface can provide. Without any doubt it is concerned with media development and takes storytelling to a new level, even though like many other parallel processes influences society in many different ways, from positive to negative (as we saw in the example of the Hikikamori).

The future of these media depend on the content created for it. Most of the current VR experiences are bare simulations of real life, but after the dust settles from the boom of the new technology, content will adapt to the specifications of the medium. This upcoming phase will again require new art solutions, but for now, as artists we need to focus on exploring the new methods of working and observing at the new developments in the world of VR and AR.

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