

TO PLAY IN VIRTUAL WORLDS: STORIES, METAVERSE ECOLOGIES AND DRESS-UP GAMES

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ABSTRACT

.This paper will bring together three terms originating from disciplines that at first glance may seem to be unrelated to artistic activity in Virtual Environments or Virtual Worlds: 'Storyworld' which is grounded in the field of Narratology, 'Gesamtkunstwerk' from the field of Aesthetics and the concept of 'Play' as described by Johan Huizinga. These three terms will be used as the theoretical framework that explicates on the creation of virtual, three dimensional 'art ecologies' for narrative purposes in virtual worlds, as well as the nature of dress-up games that the avatars who populate these ecologies engage in. One such art ecology and a virtual fashion enterprise created by the author, will be used as examples as to how such narrative activities are built and populated.

[BRIEF BIOGRAPHY]

Elif Ayiter is a designer, educator and researcher whose creative interests are based in three dimensional online virtual worlds and their avatars, as well as in developing and implementing hybrid educational methodologies between art & design and computer science. She teaches full time at Sabanci University in Istanbul. Her texts have been published at academic journals such as the Leonardo Electronic Almanac, the Journal of Consciousness Studies, and Technoetic Arts. She has authored many book chapters in edited academic books and has presented creative as well as research output at many international conferences.

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THE ENCHANTMENT OF 'PLAY'

Although this text will concentrate largely on a particular aspect of 'play' – storytelling and the creation of virtual spaces within the context of this specialized play activity – it nevertheless seems in order at the onset to look at the concept of 'play' from a broader viewpoint by briefly delving into 'Homo Ludens,' the landmark study on 'play' that was conducted by Johan Huizinga who wished to examine *"how far culture itself bears the character of play."* (Huizinga 1938) Although much has been written on 'play' in the intervening years (and some of this material will be touched upon further on in this text), Huizinga's book still remains the seminal work in this field. What is also significant is that Huizinga's findings constitute a very good framework for examining the playful nature of virtual worlds.

According to Huizinga, identifying the constituents and characteristics of 'play' is a problematic undertaking in and of itself. Huizinga starts his book by proclaiming that *"play is older than culture, for culture, however inadequately defined, always presupposes human society, and animals have not waited for man to teach them their playing,"* (1938: 1) from which it would appear to follow that the intrinsic nature of 'play' for Huizinga is actually quite intangible:

"It goes beyond the confines of purely physical or purely biological activity. It is a significant function – that is to say; there is some sense to it. In play there is something 'at play' which transcends the immediate needs of life and imparts meaning to the action. All play means something. If we call the active principle that makes up the essence of play, 'instinct' we explain nothing; if we call it 'mind' or 'will' we say too much. However we may regard it, the very fact that play has a meaning implies a non-materialistic quality in the nature of the thing itself." (1938: 1)

Although Huizinga is unable to determine what 'play' is about in its essence, nevertheless he does identify a list of the tangible attributes which this intangible thing, which seemingly can only be understood by what 'it is not' rather than by what 'it is.' Some items from his lengthy list that relate particularly well to the subject matter of this paper, i.e. play in virtual worlds, are as follows:

- Play is first and foremost a voluntary act: It is free – it is in fact freedom itself.
- Play is 'extraordinary' since it sets the player outside the confines of the 'ordinary' or of 'real' life for the duration of the play session.
- Following from this, 'play' is distinct from 'ordinary' life when it comes to both locality and duration.

- Play creates its own order as well as its appended rules (which, again, stand outside of the order of 'real' life); and demands absolute and supreme allegiance to these from the player. (1938: 7-11)

A further important attribute of 'play' that Huizinga identifies and that correlates remarkably well with play in virtual worlds is the secrecy that players will very often surround themselves with. This love of secrecy, which is also evidenced in very early childhood play, points at the exceptional and special position of play as 'a thing apart' from the 'ordinary,' which evokes feelings that *"this is for us, not for the 'others.' What the 'others' do 'outside' is no concern of ours at the moment. Inside the circle of the game the laws and customs of ordinary life no longer count. We are different and do things differently"* (1938: 12).

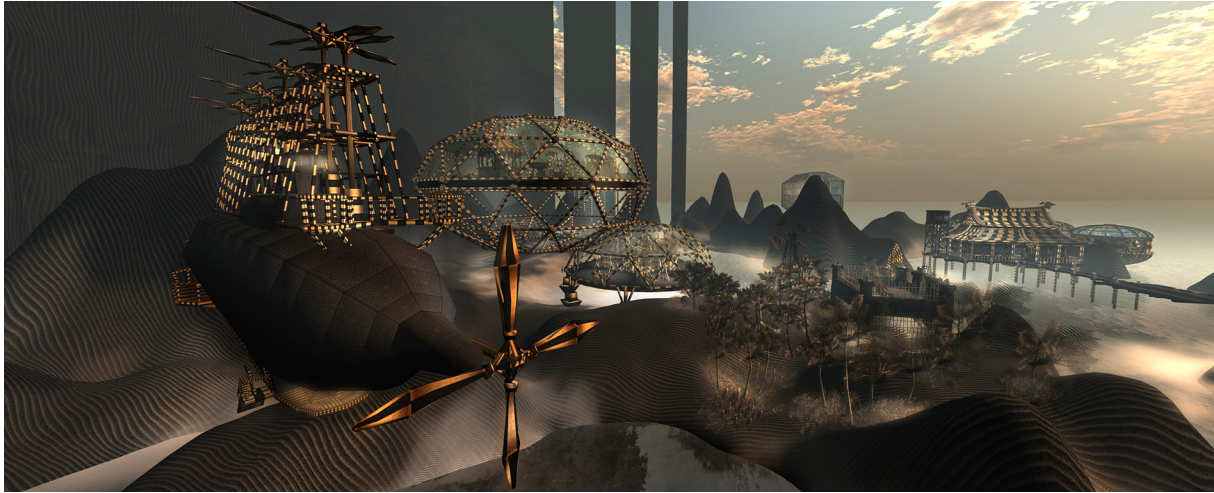


Figure 01: 'Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

Virtual worlds are, by their very natures, extraordinary. They stand outside of the ordinariness of everyday existences. Not only do they transport us to a time and a locality that is extraordinary, they also create their own rules which – just as Huizinga states in his list – demand absolute allegiance. This allegiance can best be described by the adage *'the suspension of disbelief,'*¹ which as soon as it is broken will cast the player outside the magic circle.

Such a 'play-state' – which brings an individual into the realm of the extraordinary, to a magic circle where extraordinary rules apply, where *"we are different and do things differently"* (1938: 12) – as the founding mindset for satisfying existences in virtual worlds is shared by gaming worlds and builder's worlds (metaverse) alike.

Play activity in virtual worlds is diverse: It can range from shooter games to war games, from role play to strategy games, and then when it comes to the metaverse this activity is almost always based upon 'free play.' While in gaming worlds the 'extraordinary rules' that constitute one of the essences of play are set by the system, i.e. the developers of the game; in the metaverse, (outside of isolated examples where a metaverse is used for role play in which the rules are defined not by the player individual but by the administrators of the game itself) the 'extraordinary rules' are made up by the individual player.

The core attribute of the metaverse however is that it is a builder's world, what Richard Bartle defines as a 'Wendy world.' Such worlds are explicitly about user-created content in which everything originates from the input of the user and almost nothing, outside of the bare basics upon which such content can be placed, is provided by the developers of the environment (Bartle 2009: 105–117). If we now go to the tale of Peter Pan, we will remember that Wendy invented stories for her younger

¹ Suspension of disbelief or willing suspension of disbelief is a term coined in 1817 by the poet and aesthetic philosopher Samuel Taylor Coleridge, who suggested that if a writer could infuse a "human interest and a semblance of truth" into a fantastic tale, the reader would suspend judgement concerning the implausibility of the narrative.

brothers. Amongst much other building activity, the inventing of stories and the enactment of them is as important a creative activity for today's metaverse avatar as it was for the early 20th century heroine, Wendy, whom J. M. Barrie invented for his tale. However, unlike Wendy who created her stories solely in her imagination and her audience could only see them in their own mind's eyes; today's metaverse avatar has aids at hand that allow for a story to visually manifest as virtual, but nevertheless tangible, constructs that we can see and hear and be immersed in – although we are, of course, currently yet unable to touch them.

STORYWORLDS

The term 'storyworld' denotes *"the surrounding context or environment"* which embeds *"existents, their attributes, and the actions and events in which they are involved."* (Herman 2005: 569–70) Storyworlds thus closely correlate with the convergence of temporal and spatial parameters, both of which, according to Herman, hold equal value in the construction of an integrated narrative.

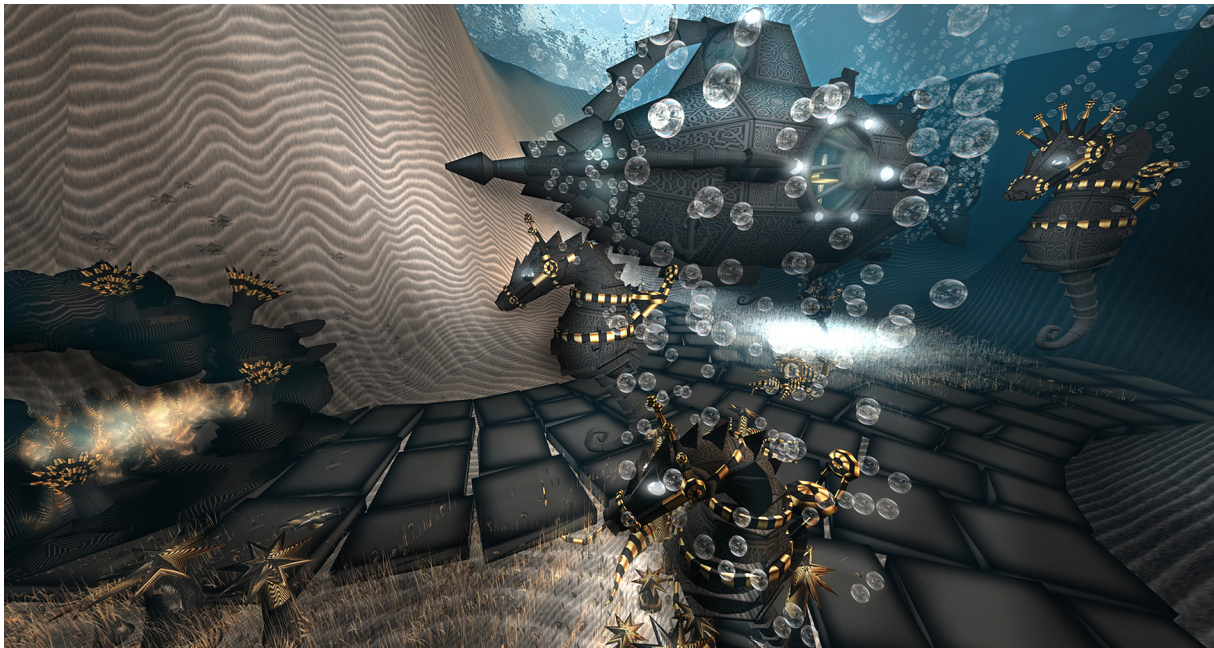


Figure 02: 'Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

The key characteristic of three dimensional, participatory, online virtual worlds is that these are dynamic spaces within which participants can interact with objects and others that surround them. Thus, unlike written narratives that inevitably have scant spatial information, online virtual worlds provide expansive visual spaces for players to explore through visual and auditory cues. Given how important, indeed fundamental, the visualization of space to virtual world narrative is, the equal role that Herman attributes to space in storytelling is crucial to an understanding as to why tales can be told/rendered in virtual worlds with considerable success. (Herman 2002)

Herman's emphasis on space as a core component of storytelling went against a long-held tendency to place temporality at the core of narrative, and to give space the role of a more or less optional accompaniment – to the extent that if space was discussed at all it was done so negatively, with emphasis placed solely on the temporal aspects of a tale.

Before Herman, the theorist who challenged this bias towards temporality in narratology was Mikhail Bakhtin who coined the concept of the 'chronotope' – a combination of the words *chronos* (time) and *topos* (space) in Greek. Bakhtin brought forth a discussion on the space/time continuum in storytelling by saying *"we will give the name chronotope (literally, "time space") to the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature."* (Bakhtin 1981) Thus, for Bakhtin, space and time became inseparable components that constituted one whole – a precursor of the 'storyworld' which Herman later formulated as a discrete concept.

When it comes to virtual worlds, time and space appear to play an even more crucial role in the construction of narrative, and not only during the authoring process itself, but also for comprehension on behalf of the participating avatar. Teresa Bridgeman says of this process that *"to read a narrative is to engage with an alternative world that has its own temporal and spatial structures,"* (2007: 52-65) while Espen Aarseth claims that *"the defining element in computer games is spatiality. Computer games are essentially concerned with spatial representation and negotiation; therefore the classification of a computer game can be based on how it represents or, perhaps, implements space."* (2007: 44-47) Finally, Henry Jenkins observes that gamers create their own *"mental maps of the narrative action and the story space"* and act upon those mental maps *"to test them against the game world itself."* (Jenkins 2004: 118-130)

THE GESAMTKUNSTWERK

At this juncture it may be appropriate to place Bakhtin's holistic construct of a space/time continuum in juxtaposition to yet another term – this one originating from an entirely different field – namely, Aesthetics: This is the term 'Gesamtkunstwerk' which denotes an idealized union of all arts – from music, dance, and poetry, to visual arts and stagecraft. The concept was formulated during the Romantic period as a reaction against the neoclassical attempt to pure forms of expression that were derived from the material characteristics of the media employed.

Although the 'Gesamtkunstwerk' was formalized as an artistic strategy starting from the 18th century, the practice of it goes back to earlier ages where it is evidenced within a religious context. David Morgan (1984: 20-30) gives an overview of early artistic practices that are akin to the much later formulation of a 'Total Work of Art' by looking at religious architecture from medieval times onwards, and especially as it is evinced during the Baroque period.

According to Morgan, the four essential aspects of a 'Gesamtkunstwerk' are:

1. Variety of media
2. Unity of effect
3. Physical environment
4. Participation of the viewer

After giving this succinct list, Morgan broadens his discourse by asking how such general criteria may differentiate meaningfully between a genuine Gesamtkunstwerk and any multi-media work of art. His answer is that only those works of art which set out to orchestrate formal elements in such a way as to achieve a unity of effect that aims to generate a sense of ambience and viewer participation can be considered Gesamtkunstwerke.

Yet another author who traces the presence of the 'Gesamtkunstwerk' to eras during which such works were not yet labeled with such a term but were nevertheless put into practice is New Media scholar Oliver Grau. Unlike Morgan, Grau does not correlate the 'Gesamtkunstwerk' with religious art alone, but gives many examples from secular works, including 360 degree architectures such as the Sala delle Prospettive which is one of the forerunners of the many panorama displays that were popular during the 19th century. Not surprisingly, Grau uses these panoramas as further examples of immersive, participatory architectures/artworks that provide convincing answers to Morgan's question as to what constitutes a 'Gesamtkunstwerk.'

What is of particular relevance to the argument of this paper, however, is that Grau also sees a precedent to Virtual Reality projects in these historic architecture/artworks, saying that the idea of transposing the audience into an enclosed, illusionary visual space was not born with the invention of the computer. Instead it is grounded in a solid art historical tradition whose core idea reaches back to antiquity. It is this tradition that has been revived and expanded in the virtual reality art of the current age; that *"this kind of virtual reality excludes the sensation of being alienated by the image and surrounds the observer in an illusory setting where time and space are one."* (Grau 1999: 365-371)

METaverse GEOGRAPHY AS A GESAMTKUNSTWERK/STORYWORLD

When it comes to translating the aesthetic concept of the 'Gesamtkunstwerk' into virtual worlds we arrive at a phenomenon that may, at this moment in time, be only in existence the metaverse – although some resemblances to physical land-art projects can also be found in its workings:

These are all-inclusive art-habitats that are built upon a custom created geography and that incorporate a custom created climate. Such art ecologies are comprised of many interrelated artifacts that provide a complex visual/sonic system that is meant to be perceived in its entirety. What is displayed grows out of its own artificial ecology, meant to be visited and experienced through avatars who are beings that are just as artificial as the ecology that surrounds them. Thus the aim of these projects is to create a continuously engaging experience that finds very easy correspondences to the terms previously discussed in this text – rounding off the components of a creative endeavor which is in accordance with David Morgan's previous definition of the 'Gesamtkunstwerk.' In other words, a variety of media, creating a unity of effect within an (albeit virtually) physical environment that invites the participation of the viewer as a consolidated whole.

FOOL'S GOLD' – GENERATING NARRATIVE THROUGH AN ART ECOLOGY

The project came into being in May 2015, when I decided to rebuild my Second Life island, an activity that most virtual landowners engage in from time to time in order to create fresh, stimulating experiences for their visitors. The island had therefore been rebuilt many times before and my observation was that some of these builds were considerably more successful than others when it came to visitor responses.

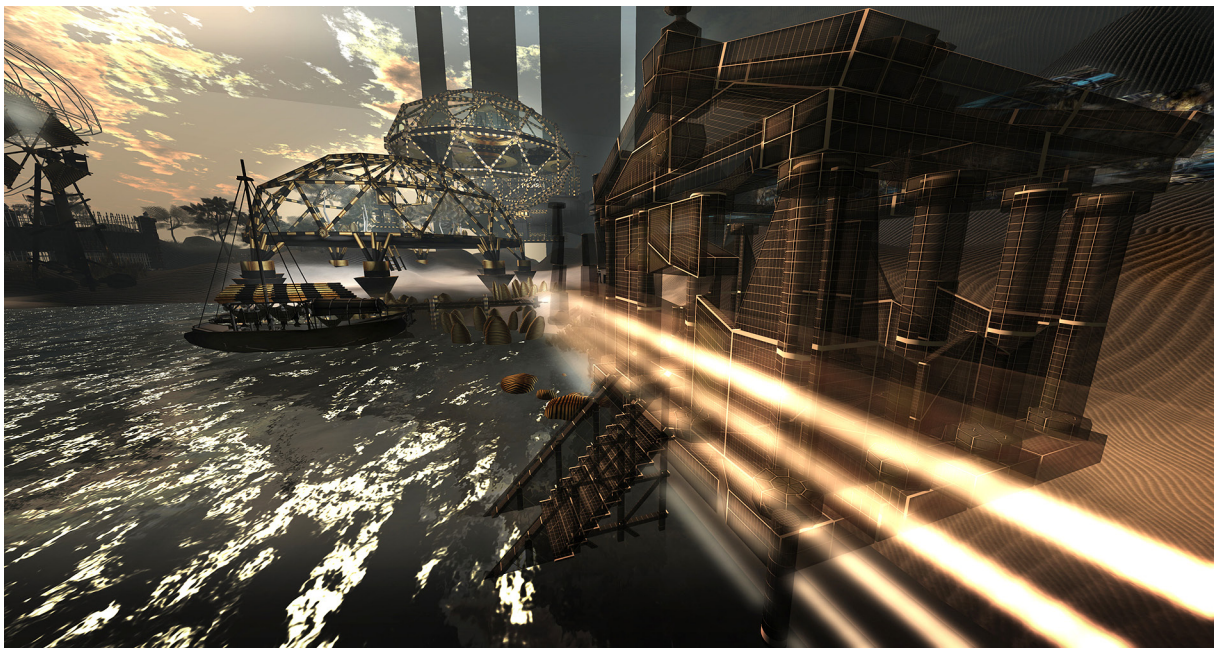


Figure 03: 'Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

A good way to assess such success is through a scrutiny of blogging activity around the work, and even more importantly through the amount of photographs and videos that have been shot on the land and that have been shared on social media. Looking over the past versions of re-building that I had done on the island over the years I came to realize that while, in some versions such activity had been quite prolific; in some others there had been a marked decrease. Although I had not conceived of them as such while I was building them, I came to realize that the successes had been 'storyworlds,' whereas the failures were simply architecture that lacked the aspects of intrigue, of stories waiting to be told, that the land and what was placed upon it held in its very being. In short, their capabilities for generating stories were what had made the successful versions work.

A further insight that I gained was that space could in fact be used to create temporality in narrative: While the successful projects had been mountainous, holding lots of secret valleys that were not immediately visible, the failed versions of the island were flat. In other words, I came to realize that what was there had to be sought rather than be directly accessible since it appeared that the time spent in navigating between linked and yet spatially dispersed locations brought forth the temporal element that, according to the idea of the 'chronotope,' is the other half of the successful telling of a tale. This is, in effect, what David Herman calls a 'story-world,' saying that *"although it is true that narratives display a double temporality, being sequentially organized accounts of sequences of events, stories can also be thought of as spatializing story-worlds into evolving configurations of agents, objects, and places."* (Herman 1999: 22) Accordingly, the latest three 'storyworlds' that I have built consist of numerous locations that are linked visually but are not placed in proximity to one another – visiting avatars are expected to spend time in exploration since the 'untold tale' is meant to unfold concurrently in space and time.

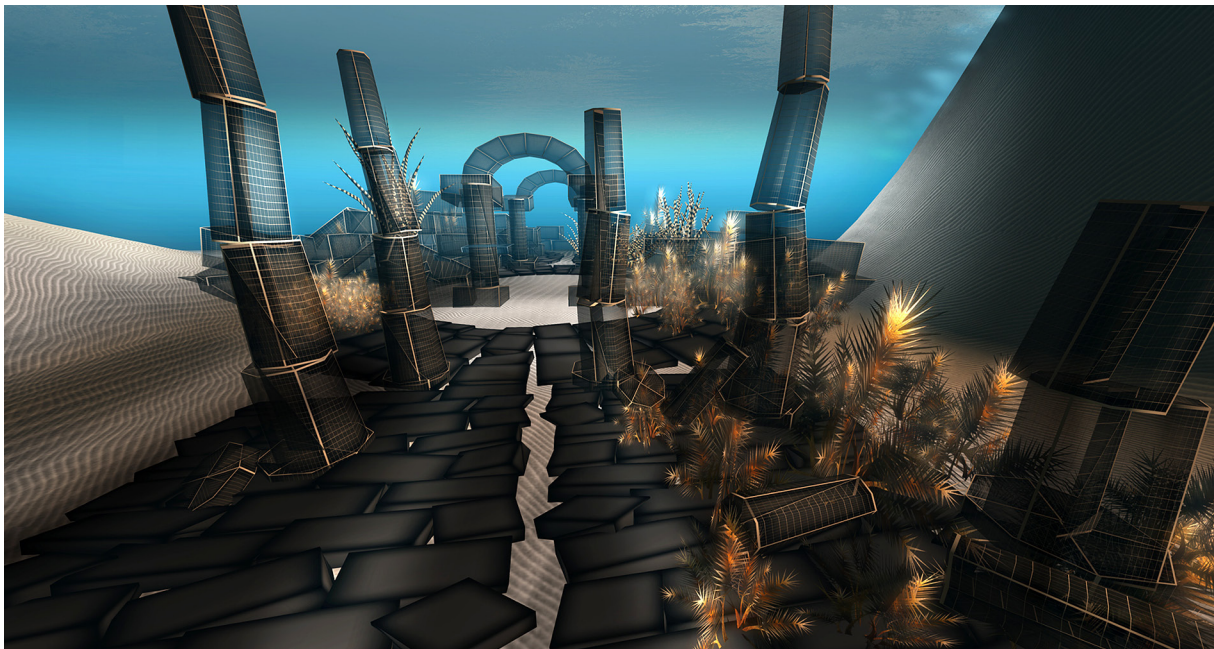


Figure 04: 'Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

No matter how important an understanding of temporality through navigation was to the building effort, I wanted to add further intrigues, ambivalences, riddles and confusions to the placed constructs themselves since it appeared to me that such visual dilemmas would heighten the process of 'storycreation.' The notion behind this strategy was that if one sees a ruin that looks exactly like ruin – built of tumbled stones – the story to unfold will probably be self-evident. If, on the other hand, constructs both look and do not look like what they are meant to represent, creative storytelling will be more likely to occur. Thus, the current buildings on the island have visual characteristics that are fantastical whilst yet holding firm clues as to what they are, what their purpose might be in the telling of the tale: While the architectural work on the island can immediately be identified for what it is – a medieval ruin, an old house, an Orientalist pavilion, a wharf, two geodesic domes, and the like – nevertheless all of these structures possess an element of the unexpected through their covering materials which are not at all what one would associate with what they are traditionally held to be. A second element of the unexpected also comes about through their locations: Thus, the wharf, where a golden ship is in the process of being built, is placed at 100 virtual meters above sea level; while an antique underwater ruin is clothed with a semi-transparent grid texture that turns the edifice into a wireframe object whilst yet remaining clearly identifiable as a ruin.

Since ambient sound is considered to be an essential component for 'presence' in virtual environments (Hendrix and Barfield 1996: 290-301) the island has also been furnished with ambient sound throughout, turning into deep underwater gurgles whenever one ventures underwater, or increased wind when one goes to higher altitudes. In addition to this ambient sound however,

locations also have music embedded into them, such as the Sufi music that surrounds the visitor upon entry into the Orientalist pavilion.

Finally, while the emphasis is on visual/sonic clues that will enable the story that is yet to be told, visitors are also presented with a text upon entry to the island which gives them several keywords that may help them on their way: These are phrases such as 'Ship of Fools' which evokes departure, seafaring, far off lands, never to be attained goals, loss of direction, oblivion; or indeed the very title of the project itself, 'Fool's Gold' which evokes greed, betrayal, illusion and deception.

And sure enough, there they are – the seafaring and airborne vessels and the pavilions, ruins and domes, nestled amidst steep hills and underwater canyons that are covered in an improbable vegetation of gold which reaches out to a quiet ending of the day.

ALL DRESSED UP...

While the art ecology may be an all important component in creating play sessions through storytelling/storycreation, equally important are the avatars who actually come into this world to play. In order to understand the importance of these virtual agents a brief survey of children's play theory will be helpful: Paul Harris describes children's 'role play' using externalized objects, such as dolls or other toy artefacts, as a prop for projecting different personas with which a child will fully identify for as long as the play session is in progress; saying that children *"create such characters out of thin air, positioning them at various points in their actual environment"* (Harris 2000: 34).



Figure 05: 'Avatar dressed in alpha.tribe apparel at Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

According to Harris, these extended play sessions do not need to involve multiple players; indeed they are most often performed by a child playing in isolation. Role play, says Harris, is further striking since children will temporarily immerse themselves fully into the identity which they create; also often shifting their moods and their tone of voice in ways that are appropriate to the part(s) which they are enacting.

While it is true that most adults will lose the spontaneity of child's play once they reach their teens; nevertheless all of us, child as well as adult, appear to make over the world in our minds on a daily basis, and much of what we make over is fantasy. The difference is that while children have toys, adults have images, words, music, and daydreams that are deemed to perform in much the same way as toys do. Our fantasies are the micro-worlds of an inner life that all of us manipulate in our own way

to come to terms with feelings, realities and aspirations. In this way children and adults may not really be so different in their use of fantasy play. The difference lies only in the concreteness of the symbols, and in the maturity of their purposes, not in the universal existence of fantasized inner lives (Sutton-Smith 1997: 156).

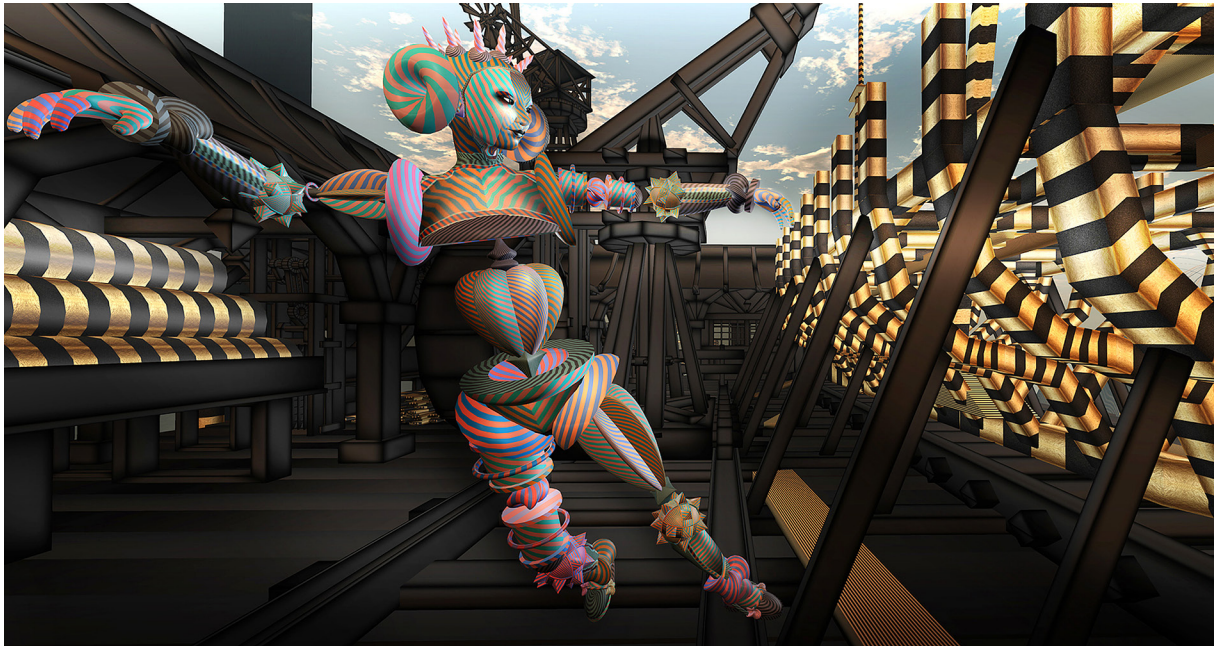


Figure 06: 'Avatar dressed in alpha.tribe apparel at Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

The significance of virtual worlds, in this context, appears to be that they furnish adult fantasies with concrete symbols. And one of the most crucial ones of these is the dressed-up avatar – a concept that I have been much involved in since the opening of a fashion store called 'alpha.tribe' in Second Life in 2008: 'alpha.tribe' was the outcome of a personal research project of mine which was based upon the examination of multiple identities and the 'splitting up of the creative self.' What started out as a personal investigation (observing a system of multiple avatars of my own creation who were embroiled in collaborative creative activity), in time developed into a fashion store that today sells close to 200 items. The business has a follower group which currently stands at 1200 avatars. When I decided to write this text I sent out a questionnaire about how my customers used my creations. What has overwhelmingly emerged from the answers is that individuals who buy alpha.tribe apparel will do so for their own creative purposes; that they will use the items as a part of their own artistic projects – and that storytelling and/or story-creation is one of the most popular forms of creative play that many of them engage in.

It may be asked what the difference between dressing-up in Real Life and doing so inside a virtual world might be. The answer, I believe, resides in the very artificiality of the virtual environment in which everything (including flora, fauna and the humanoid avatars themselves) has been 'made' by humans. Thus, while our Real Life bodies and persona can be modified to a certain extent, how we are represented inside a virtual world is dependent solely upon the quirks of our own creativity and imagination. It may thus be that one of the most important manifestations of creative behavior in virtual worlds is the creation of the 'self' itself, and that the representation(s) of this 'self' are artworks in their own right. Given that what is sold in my store is avatar apparel, the answers stating that the purchase of the item had triggered an artistic inspiration leads me to hope that my output may have contributed to this complex process which, amongst much else, involves complete identification between the physical person behind the keyboard and the three dimensionally embodied, being on the screen. What emerges is a 'cadavre exquis,' a conceptually complex assemblage, which not only involves the artifacts used themselves, but also extends into investigations of identity and the representation of the 'self.'

CONCLUSION

Today, both projects – the fashion store 'alpha.tribe' as well as the island 'Fool's Gold' – are alive and well in Second Life: The island has been visited by thousands of avatars since its completion in Spring 2015, and I am gratified to observe that its visitors have in fact used the art ecology for the purpose that it was intended for – as an open ended platform which is meant to be utilized for the generation of personal narratives and tales. These tales come about as photo series and as machinimas that are shared on social media, as is the case with most second-order metaverse creative activity that revolves around virtual photography, video and image creation.



Figure 07: 'Avatar dressed in alpha.tribe apparel at Fool's Gold Island,' Second Life, 2015. Photograph by Elif Ayiter.

What is notable with this photography/video based second-order activity is that in many cases the aims of the artist avatar engaged in it seems to go considerably beyond a pure documentation, or a mere taking of snapshots as a souvenir from a virtual visit, or a plain fashion shoot displaying an outfit that has been purchased.

Instead, the metaverse boasts an accomplished cadre of artists who choose to express themselves solely through the medium of virtual photography and machinima, very often using the artifacts of others for props, scenery and costumes – hence the term 'second-order creativity' used above.

The results are varied, ranging from the humorous to the grotesque and the tragic; and from the surreal to the starkly minimal. Where photographs are concerned, quite often the output is displayed as not only one single image but a series of images that are in sequence or otherwise connected through content.

What is also often evident in these images is a search for narrative contained in a single frame that reminds one of Mannerist paintings of the Baroque period. Indeed the quest of some of these metaverse photographic artists may well be the production of what Sjoerd van Tuinen, quoting Deleuze, calls 'time-images' that "*render visible the temporal relations which cannot be reduced to the present,*" (Deleuze 2006: 290) which were also a central concern of the Baroque, one of the cornerstones of which was "*the 'crystal-image' wherein a myriad of coexisting virtual temporalities – recollections, dreams, worlds – are fused with the flowing present, as so many heterogeneous durations that constantly feed on each other, thus fixating the fact of movement in an instantaneous becoming.*" (Tuinen 2012: 53-75)

Many of the photographic artworks that visiting metaverse artists have generated through the project 'Fool's Gold' demonstrate this condensation of temporalities, and appended narrative: Through a dramatically styled posing of the avatar (or of groups of avatars) within the landscape; as well through lighting and composition that direct flow and provide multiple focal points within a single frame, a visuality that is strongly reminiscent of the dramatic opulence of Baroque painting is achieved.

The outcomes are visualizations of what the visiting artist appears to have had no hesitation in beholding as a 'storyworld,' since a personal tale, which takes its trajectory from the 'Gesamtkunstwerk' that brings together the elements of this 'storyworld,' seems to have been generated from a journey to 'Fool's Gold' island. The resultant image is a frozen moment in time, at a specific point in space, of this personal tale.

REFERENCES

Aarseth, E., (2007). "Allegories of space: the question of spatiality in computer games," in *Space Time Play: Computer Games, Architecture and Urbanism: The Next Level*, F. von Borries, S. P. Walz, and M. Böttger, Eds., Birkhauser, Berlin, Germany, pp. 44–47.

Bakhtin, B., (1981), "Forms of Time and of the Chronotope in the Novel: Notes towards a Historical Poetics," in *The Dialogic Imagination*, Michael Holquist (ed), Austin: University of Texas Press, pp: 84-258.

Bartle, R. A., (2009), Alice and Dorothy Play Together, in *Third Person*, Harrigan, P., Wardrip-Fruin, N., (eds), MIT Press, Boston, pp: 105–117.

Bridgeman, T., (2007). "Time and space," in *The Cambridge Companion to Narrative*, D. Herman, Ed., Cambridge University Press, Cambridge, Mass, USA. pp. 52–65.

Deleuze, G., (2006), *Two Regimes of Madness. Texts and Interviews 1975-1995*, translated by A. Hodges and M. Taormina, Semiotext(e), New York, p: 290.

Grau, O., (1999), "Into the Belly of the Image: Historical Aspects of Virtual Reality," *Leonardo*, vol. 32, no 5, pp: 365-371.

Harris, P.L., 2000, *Understanding Children's Worlds: The Work of the Imagination*, Wiley-Blackwell, Oxford, UK. 30–47.

Hendrix, C., and W. Barfield, W., (1996) "The sense of presence within auditory virtual environments." *Presence*, vol. 5, pp: 290–301.

Herman, D., (2005), "Storyworld." in *The Routledge Encyclopedia of Narrative Theory*, David Herman, Manfred Jahn, and Marie-Laure Ryan (eds), London: Routledge, pp: 569–70.

Herman, D., (1999) "Spatial cognition in natural-language narratives," in *Proceedings of the AAAI fall symposium on narrative intelligence*, pp. 21-25.

Herman, D., (2002), *Story Logic: Problems and Possibilities of Narrative*, University of Nebraska Press, Lincoln, Neb, USA.

Huizinga, J., (1938). *Homo ludens; a study of the play-element in culture*, Beacon Press, Boston (re-print 1955). pp: 1–12.

Jenkins, H., (2004). "Game design as narrative architecture," in *First Person: New Media as Story, Performance, and Game*, N. Wardrip-Fruin and P. Harrigan, Eds., MIT Press, Cambridge, Mass, USA. pp. 118–130.

Morgan, D., (1984), *The Cosmology of Philipp Otto Runge and its Influence on his Interest in the Gesamtkunstwerk*, Master's Thesis, University of Arizona, pp: 20-30.

SuttonSmith, B., (1997), *The Ambiguity of Play*, Harvard University Press, Boston. Pg: 156.

Tuinen, S. v., (2012), "Cinematic Neo-Mannerism or Neo-Baroque? Deleuze and Daney," *Image & Narrative*, vol. 13, no 2, pp: 53-75.