A Telepresence Story: *COME HILL OR HIGH WATER*

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Abstract

This artist talk presents the development of a telepresence story experience *COME HILL OR HIGH WATER* by Paul Sermon (2022/23), presented at ISEA2023 under the sub-theme *Symbiotic Imaginaries*. As an invented world, this work is more dystopian than utopian, depicting a redundant world, already very present in a post-brexit Britain. It presents two online telepresent participants (actors) trying to carry on as normal, waking up in flood water, distilling their own fuel and driving into the hills to escape with no real plan, only to find themselves back where they started, but worse. The work is a dark absurd satire on ecological ignorance told through a symbiosis of storytelling and telepresence. Informed by the recently completed AHRC funded Covid-Response project *Collaborative Solutions for the Performing Arts: A Telepresence Stage* (December 2020 to May 2022), the work builds on its online telepresence techniques such as green-screen compositing, networked video production and virtual set design to provide coexistent telepresent interactions between remote performers. By using background segmentation instead of green-screen technology *COME HILL OR HIGH WATER* has been developed as a networked telepresence artwork for online public participation, requiring only a computer, webcam, Internet connection and web browser to participate.

Keywords

Telepresence, telematic, performance, theatre, storytelling, narrative, proprioception, phenomenology, interaction, agency.

Telepresence Stage

COME HILL OR HIGH WATER follows and results from Sermon's recently completed UK Arts and Humanities Research Council (AHRC) funded Covid-Response project *Collaborative Solutions for the Performing Arts: A Telepresence Stage* [1], from December 2020 to May 2022. The *Telepresence Stage* project directly supported the UK performing art sector with resources and solutions to overcome the closure of theatre venues. It enabled their actors, dancers and other performing arts professionals to rehearse and interact together in shared online spaces and to produce collaborative live performances from their separate homes and studios. In a dramatic shift from the paradigm of the web-conference grid, the *Telepresence Stage* offered alternative conceptual and technical solutions to break free of these isolating constraints and provided an altogether new platform, where their experience of online connection was heightened and re-envisioned through the superimposition of their bodies in virtual spaces. Led by Paul Sermon at the University of Brighton, in collaboration with LASALLE College of the Arts in Singapore and the Third Space Network in Washington DC, the 18-month study combined techniques such as green-screen technology, networked video production and virtual set design to create a telepresence studio laboratory, providing full-body interactions between remote performers. Ten performing arts companies undertook residencies to test, explore, and perform online techniques, between their participating members in remote locations; including Creation Theatre [2] from Oxford (see figure 1), Red Ladder Theatre [3] in Leeds and Improbable [4] from London. Each residency explored and developed a live-streamed public performance demonstrating a unique range of telepresence solutions, made available via case study documents and videos, providing help guides, tutorial support and open-source resources designed to assist UK performing arts professionals to adapt and continue to work online through the COVID-19 lockdown.

Figure 1. A third card player appears from another Cézanne painting on the same theme. Creation Theatre actors Graeme Rose and Giles Stoakley attempt to communicate with the Impressionist character, who is unresponsive, apparently lost in his game of cards, for Telepresence Stage (2021) ©Paul Sermon.

Telematic Quarantine

Whilst work on *COME HILL OR HIGH WATER* commenced in August 2022 by building on the findings of the completed *Telepresence Stage* research project, it also follows and picks up on Paul Sermon's earlier online telepresence COVID performance project for public participation *Telematic Quarantine: Telepresent stories of self [isolation]* [5] in November 2020. This was then used as a pilot study to initiate the *Telepresence Stage* project. *Telematic Quarantine* was a collaboration with a number of remote performers from many corners of the globe, staged for the International Limestone Coast Video Art Festival 2020 in Mount Gambier, South Australia, under the theme *Video Art during and after the pandemic* [6] curated by Melentie Pandilovski. *Telematic Quarantine* utilised a customised Skype connection to bring the international performers into Sermon's home in Brighton, UK, for an uncanny COVID-themed encounter. Together, in a heavily layered video environment where participants moved through painterly-rendered 3D simulations of the rooms in Sermon's actual house, they played, improvised, and shared their stories of self-isolation. Over the 2.5 hour live performance, the ideas and interchanges varied widely as did the theatrical/filmic genres explored: from kitchen sink drama to political satire (see figure 2), and from hospital drama to magic realism and the theatre of the absurd.

Figure 2. While (left to right) Paul Sermon, Felipe Cervera and Steve Dixon prepare to address the nation at a spinning fruit machine lectern for the daily press briefing, the UK Chief Medical Officer Chris Whitty suddenly appears in the bathroom mirror, in Telematic Quarantine (2020). ©Paul Sermon.

Telepresent Participation

Telematic Quarantine successfully led and informed the aims of the *Telepresence Stage* project as its first pilot study, but the public participation and improvisation aspects of *Telematic Quarantine* were not fully picked up again until the development of *COME HILL OR HIGH WATER*, which expands the narrative form and dramaturgy of theatre as an open platform, made entirely for online public participation. Viewed and participated in from the privacy of an individual's desktop or laptop computer, it combines a range of storytelling channels in its narrative structure, including theatre, film, game, roleplay and video chat. Defined as neither one or the other, but simultaneously as all, it points towards a new telepresence storytelling language. Central to the production of *COME HILL OR HIGH WATER* are the participants, who are instantaneously both individual viewers and coexistent performers at the same time. Their webcam images are composited in multiple sequential situations and scenes, confronting an ecological crisis through a dark and absurd socio-political open narrative, played out by the participants. Performing together, they keep each other warm, escape flood waters, drive to higher ground, camp out in the hills and avoid wild fires. The participants play a principal role, being the only actors and protagonists in the entire experience. They provide the sole dialogue in the narrative and have the potential to talk and role play together in any way they choose, according to the scenes they find themselves in. The scenography elements; digital theatre sets and film locations are all created from elements Sermon's childhood past, and are bult entirely around the agency capabilities of the unknowing participant. The actor-participants are placed within complex multi-layered scenes, consisting of background environments and foreground objects, wearing augmented props and costumes, experienced directly from a networked computer, without the need for a green-screen. The digital scenography hints at and suggests possible narrative directions using audio-visual clues and cues, not dissimilar to a computer adventure game.

Telepresent Proprioception

The participants quickly discover their telepresent proprioceptive capabilities and the opportunity to gesture, play and interact with each other in the same composited video image, immediately introducing them to their telepresent self as the 'performing other', thereby intuitively responding to each other. *COME HILL OR HIGH WATER* combines the separate participants within the same specular image, allowing the self and the other simultaneous presence in a shared third-space of coexistence. The remote participants are effectively sharing the same eyes – the same point of view, where one's gaze of the other and reflection of the self are one and the same. Allowing participants an opportunity to observe and reflect on the performed dialogue occurring in front of them whilst being directly responsible for it, thereby expounding the juncture between empathy and presence. Sermon's work provides a space for practice and theory to engage in a dialogue informed by the phenomenological tradition of such as Martin Heidegger [7], Maurice Merleau-Ponty [8] Jean-Paul Sartre [9] and the emergent 'technoetic' field of technology and consciousness research defined by Roy Ascott [10].

Telepresence Storytelling

COME HILL OR HIGH WATER is cyclical narrative and can be joined at any point. The two separate participants will find themselves lying in bed together, zooming out to

reveal a partially flooded bedroom, complete with washed up debris on the floor (see figure 3). The residue of mould and detritus, suggest prolonged tidal flooding from raising sea levels. The scene moves outside the house, where they appear floating in deep brown flood water, overflowing with raw sewage (see figure 4).

Figure 3. Participants in bed together discover a flooded room, in COME HILL OR HIGH WATER (2022). ©Paul Sermon.

Figure 4. Remote participants floating in the flood, sewage overflows as Blue Origin launches, in COME HILL OR HIGH WATER (2022). ©Paul Sermon.

Just as Jeff Bezos blasts off in Blue Origin in the background (presumably to escape the flood), breaking news is announced. The scene zooms out to reveal the flood reported from a makeshift news desk, with the participants placed simultaneously in the flood video report and as news readers on 6 NEWS. The scene zooms out again to reveal the news report on an old portable TV, watched by viewers (the participants silhouettes) sitting on a sofa. The action then turns to the sofa, where the participants face themselves on the sofa, complete with augmented legs, mudded feet and boots. The participants move to a dilapidated kitchen and appear to be distilling their own fuel and planning their escape to higher ground. In a clapped-out old Mini Metro, the participants make for the hills, only to breakdown and are forced to camp for the night, where they become visible as shadows in a tent, amid flies and

wild fires (see figure 5). After walking back home in the rain the participants return to their bedroom sick and vomiting, where they futilely attempt to dry their sodden clothes.

Figure 5. Participants' camping shadows as a wild fire starts, in COME HILL OR HIGH WATER (2022). ©Paul Sermon.

Victorian Paper Theatre

COME HILL OR HIGH WATER significantly benefitted from the Telepresence Stage research outcomes, both technically and creatively. The conceptual premise of the project was to escape the entrapment of the Zoom grid and identify an online video and audio platform solution, fit for purpose. Whereby performing together in digital theatre felt as close as possible to that of a physical staged production, albeit remotely accessed. Throughout the project each resident performing arts company was introduced to the Telepresence Stage concept using the analogy of the 'Victorian paper theatre'; a traditional model theatre constructed from cardboard, complete with changeable backgrounds, wings, scene settings and actors, being attached to and moved about with sticks, inserted through the wings from stage left and right to all the available traditional theatre locations. This 2D layering of paper scenography and paper actors was the perfect analogy of how the video layers were composited in the Telepresence Stage project. The paper theatre itself representing the telepresence studio laboratory where the digital assets were layered in multiple live video compositions. Using chromakeying techniques, scene elements and actors on green-screen backgrounds could be isolated out and layered in the scene, behind and in front of each other. Just like the paper theatre, the central node operator had all the assets at their disposal, ready to composite the scene, including the remote actors who are video calling in from their remote home locations standing against green-screen backdrops.

Telepresence Techniques and Solutions

Throughout all ten residencies the central compositing was completed using various video production and VJing applications to mix and switch the audio and video layers, together with live video calls from the remote actors.

Whilst the initial pilot residency with *Telematic Quarantine* used the VJing application 'Resolume Avenue 6' in combination with 'Skype' for the video communications, the following residencies made full use of the recent introduction of 'WebRTC' (Web Real-Time Communications) for combining the remote actors in the production. WebRTC is a free and open-source protocol allowing audio and video communication to work inside web pages, providing direct high-quality, low latency peer-to-peer audio and video communication, eliminating the need for native applications such as Skype. WebRTC has been incorporated into a range of online production platforms and was used in a combination of ways during the project. Many of the residencies used 'vMix' for their Telepresence Stage solution, a complete video production platform, incorporating WebRTC communications with video mixing and chromakeying effects, all in one application. The stability and functionality of vMix made this the software platform of choice. Using a Google Chrome browser and the vMix Call website, the remote actors simply needed call the Telepresence Stage vMix platform running on a computer in Brighton, operated by Paul Sermon, who had a full range of video switching functions and effects available to him. The incoming video calls were chromakeyed together with the virtual sets by the vMix operator and the composited programme output was relayed back to the remote actors and simultaneously streamed online across a number of platforms including YouTube, Zoom and Microsoft Teams.

Current Technical Advances

With the new production of *COME HILL OR HIGH WATER* these techniques have been extensively built on for the central production and compositing, to include background segmentation rather than using green-screens, applying custom made augmented props, costumes and masks using Snap Camera lenses and video effects and filters applied using Resolume Avenue 7. It combines a range of networked video production techniques and streaming processes, including virtual set design, visual effects filters and augmented props and costumes to place remote online participants within a progressive open-narrative environment via WebRTC without the need for a green-screen. Whilst *COME HILL OR HIGH WATER* has been developed as a networked telepresence artwork, requiring only a computer, webcam, Internet connection and web browser to participate, it is also presented as an installation to heighten the immersive and technical quality of the participation. The installation occupies two identical room spaces (at any distance apart) with plain white walls to guarantee the best possible background segmentation process, bespoke light-ring and webcam to improve image quality and large LCD screens to enhance the audio-visual experience. The viewers participate in the work simply by sitting at a table in front of the camera, light-ring and LCD screen, where they are placed within a range of scenes; against background environments and behind objects and augmented props and costumes.

References

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Author Biography

Paul Sermon studied BA(Hons) Fine Art under Professor Roy Ascott at Newport School of Fine Art, from 1985 to 1988. Master in Fine Art (MFA) degree at the University of Reading from 1989 to 1991. Completed his PhD 'A phenomenology of empathy and presence through telematic art practice' in 2019 at the University of Brighton. Awarded the Prix Ars Electronica Golden Nica, in the category of Interactive Art for *Think about the People now* in 1991. Artist in Residence at the ZKM Centre for Art and Media in Karlsruhe, Germany in 1993. Received the Sparky Award from the Interactive Media Festival in Los Angeles for *Telematic Dreaming* in 1994. Dozent for Media Art at the HGB Academy of Fine Arts Leipzig, Germany from 1993 to 1999, Professor of Creative Technology at the University of Salford from 2000 to 2013. Currently Professor of Visual Communication at the University of Brighton, since September 2013.