

SITE UNSEEN prototype

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Keywords

Game design, ambiguity, perception

Format of work

A game prototype running on Window-based computers, played with a gamepad or mouse and keyboard.

DESCRIPTION OF WORK

SITE UNSEEN prototype (SUP) is an experimental game made in Unity. It runs on Windows-based computers and is played with a gamepad or mouse and keyboard. It can be played in 10 to 20 minutes to completion. In *SUP* players take on the role of the Cartographer, a being with special perceptual abilities that allows the exploration of multiple spatial dimensions at once, through a unique ‘shifting vision’ view. This view can shift from one to four simultaneous split on-screen first-person perspectives during runtime. Each view reveals different layers of the environment.

As players navigate and explore their onscreen first-person view responds to their movement, orientation, and surroundings, allowing them to find pathways and solve visual puzzles. Through playing close attention to the world and how it can be seen players can further their understanding of the world and unravel its secrets.

Video of gameplay: <https://youtu.be/BQ0IK-KStvc>

RESEARCH STATEMENT

Experimental game *SUP* presents an ambiguity-focused exploratory experience that heightens the act of looking, to reveal perceptual complexities in designed videogames.

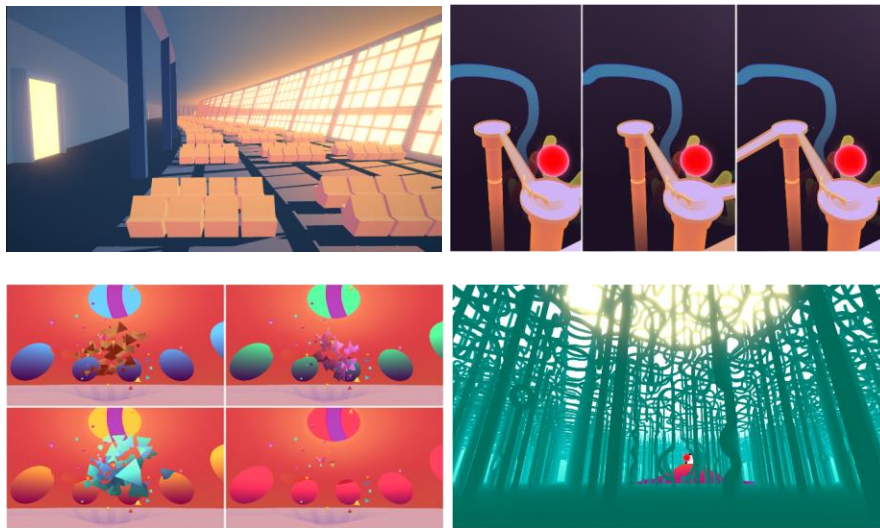
SUP investigates how designed ambiguity (Gaver et al. 2003; Sicart 2014) can be applied within the game design field (Muscat et al. 2016) and extended towards a broader game playing audience. This project furthers prior research project *WORLD4* (Muscat 2018) and adopts a game design approach and process that advances exploratory design strategies (Muscat & Duckworth 2018). The research goal is to further an understanding of designed ambiguity as a significant game design trait, an area overlooked within the game design field; noted for its valorisation of overly mechanistic values, thought, and approaches (Flanagan 2015; Polansky 2015; Soderman 2021; Kagen 2022).

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As an experimental game *SUP* seeks to contribute in-depth game design knowledge towards the application and understanding of ambiguity within games. Key is *SUP*'s innovative 'shifting vision' designed to make information of ambiguity explicit and heighten the player action of looking. This intends to place emphasis on player navigation and orientation, in relation to an interpretive virtual world.

Furthermore, *SUP* has been designed to appeal to a broader game-playing audience to engage with its experimental characteristics. As such, the design considers the relationship between ambiguity and structural game and level design techniques, to better accommodate a range of player abilities. Traits can be found in the design of the world, structured as a series of chambers that sequentially introduce, alter and challenge player perception through adjusting spatial and onscreen information, without written instruction.



The design has been tested using industry-standard methods (Daviau & Leacock 2017; de Jongh 2017) at public events, further developing testing methods outlined in Muscat et al. 2019. To evaluate the design's salience, it was disseminated at preminent industry events. Findings reveal broader application of designed ambiguity requires consideration of contextual framing, guidance, and novelty (Muscat 2024). Findings highlight design complexity in the act of 'looking' (Muscat 2022) prominent in "ordinary" game experiences (Tyack & Mekler 2021).

SUP builds upon the award nominated research game *WORLD4* (Freeplay 2018, A MAZE 2019). The project was competitively funded by VicScreen in 2021 through an Assigned Production Investment, allowing for the involvement of four collaborators. The project was positively reviewed, shortlisted, and invited to be disseminated at industry events:

Queensland Games Festival 2023, the state's largest games-focused event; *Games Connect Asia Pacific 2023*, preminent national industry conference; *Play Now Melbourne 2023*, a Victorian Government hosted industry showcase; *Play Space 2023* public arts event; *Critical Game Studies Symposium 2022* (QUT) and keynote at the *Experimental Games Conference 2022* (Griffith). The project was tested with developer collective *Squiggly River* over a two-year period. Media coverage includes interviews with the Victorian Government, radio station 4ZZZ, and games media.

This work is significant in its innovative design approach to interrogating game design theory, as game design research embedded in deep practice, and production of globally relevant game design knowledge that bridges scholarly and applied.

EXHIBITION

An ideal display for *SUP* would involve the use of a large monitor or TV on a table, connected to a desktop computer or gaming laptop running Windows, with speakers outputting audio. Players can interact with the game using a wired or wireless Xbox gamepad. Information cards can be supplied by the developer for input controls, but these can also be accessed in game through the pause menu. Attendees can simply play the game at their leisure or watch over the course of the conference, without the need for a developer on hand to assist.

BIO

Dr Alexander Muscat is a Lecturer in Games at University of the Sunshine Coast. His research investigates game-making practices, production processes, design theory, and player experience. Alexander's research includes an experimental, practice-based focus with special interest towards how games challenge sensory perception and compel curiosity. His work has been disseminated at scholarly, arts, and industry venues including CHI Play, DiGRA, A MAZE, and Games Connect Asia Pacific.

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BIBLIOGRAPHY

- Daviau, Rob, and Matt Leacock. 2017. 'Board Game Design Day: The Making of "Pandemic Legacy"'. Presented at the *Game Developers Conference 2017*, San Francisco, USA. <https://www.gdcvault.com/play/1024300/Board-Game-Design-Day-The>.
- Flanagan, Mary. 2015. 'Playful Aesthetics: Towards a Ludic Language'. In *The Gameful World: Approaches, Issues, Applications*. Cambridge, Massachusetts, United States: MIT Press.
- Gaver, William, Jacob Beaver, and Steve Benford. 2003. 'Ambiguity as a Resource for Design'. In *CHI '03 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 5:233–40. 1. Ft. Lauderdale, FL, USA: ACM Digital Library. <https://dl.acm.org/citation.cfm?id=642653>.
- Jongh, Adriaan de. 2017. 'Playtesting: Avoiding Evil Data'. Presented at the *Game Developers Conference 2017*, San Francisco, USA. <https://www.gdcvault.com/play/1024132/Playtesting-Avoiding-Evil>.
- Kagen, Melissa. 2022. *Wandering Games*. Cambridge, Massachusetts: MIT Press Academic.
- Muscat, Alexander. 2018. 'Ambiguous Worlds: Understanding the Design of First-Person Walker Games'. *Doctor of Philosophy*, Melbourne, VIC, Australia: RMIT University. <https://researchbank.rmit.edu.au/view/rmit:162562>.
- Muscat, Alexander. 2020. 'Mechanics & Materialities: WORLD4 and the Effort of Looking in Videogames'. In *Proceedings of DiGRA Australia 2020*, 5. Brisbane, Australia: DiGRA. https://digraa.org/wp-content/uploads/2020/01/DiGRAA_2020_paper_36.pdf.

- Muscat, Alexander. 2022. 'Site Unseen: Material Complexity and the Effort of Looking in Videogame'. Presented at the *Digital Media Research Centre (DMRC) Critical Game Studies Symposium*, 2022, Queensland University of Technology, Digital Media Research Centre. https://research.usc.edu.au/esploro/outputs/conferencePresentation/Site-Unseen-Material-Complexity-and-the/99747498102621?institution=61USC_INST.
- Muscat, Alexander. 2024. 'Ambiguities of Game Design and the Challenge of the Walking Simulator'. In *Proceedings of DiGRA Australia 2024*, 5. Melbourne VIC Australia: DiGRA.
- Muscat, Alexander, and Jonathan Duckworth. 2018. 'WORLD4: Designing Ambiguity for First-Person Exploration Games'. In *The Annual Symposium on Computer-Human Interaction in Play*, 341–51. CHI PLAY '18. Melbourne, VIC, Australia: ACM. <https://doi.org/10.1145/3242671.3242705>.
- Muscat, Alexander, Jonathan Duckworth, and Douglas Wilson. 2019. 'Methods Beyond the Screen: Conducting Remote Player Studies for Game Design Research'. In *Proceedings of DiGRA 2019 Conference: Game, Play and the Emerging Ludo-Mix*. <https://dl.digra.org/index.php/dl/article/view/1092>.
- Muscat, Alexander, William Goddard, Jonathan Duckworth, and Jussi Holopainen. 2016. 'First-Person Walkers: Understanding the Walker Experience through Four Design Themes'. In *DiGRA/FDG '16 - Proceedings of the First International Joint Conference of DiGRA and FDG*. Vol. 13. Dundee, Scotland: Digital Games Research Association. http://www.digra.org/wp-content/uploads/digital-library/paper_318.pdf.
- Polansky, Lana. 2015. 'Against Flow'. *Sufficiently Human* (blog). 2015. <http://sufficientlyhuman.com/archives/995>.
- Salen, Katie, and Eric Zimmerman. 2003. *Rules of Play: Game Design Fundamentals*. Cambridge, Mass.: MIT Press.
- Schell, Jesse. 2008. *The Art of Game Design: A Book of Lenses*. 1st ed. Morgan Kaufmann.
- Sicart, Miguel. 2014. *Play Matters*. 1 edition. Cambridge, Massachusetts, United States: MIT Press.
- Soderman, Braxton. 2021. *Against Flow: Video Games and the Flowing Subject*. Cambridge, Massachusetts: MIT Press Academic.
- Tyack, April, and Elisa D. Mekler. 2021. 'Off-Peak: An Examination of Ordinary Player Experience'. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, 1–12. CHI '21. New York, NY, USA: Association for Computing Machinery. <https://doi.org/10.1145/3411764.3445230>.