

Vertigo and Emptiness in the Memory Palace

Chris Chesher, John Sutton, Robyn Backen, John Tonkin

The University of Sydney; Macquarie University

chris.chesher@sydney.edu.au, john.sutton@mq.edu.au, robyn.backen@sydney.edu.au, john.tonkin@sydney.edu.au

Abstract

This panel will explore potential intersections of mixed reality and memory. It is presented by members of a research group that was formed in 2023: a digital cultures theorist (Chris Chesher), a cognitive philosopher (John Sutton) and two artists (Robyn Backen and John Tonkin). Speakers will engage with a range of object-based and mixed reality case studies to question the connection between space and memory. How does the presence of the body contribute to these experiences? What is the relationship between individual and collective recollections? How do these experiences offer new possibilities to engage with acts of remembering and forgetting?

Keywords

Mixed reality, memory, spatial cognition, place, forgetting, precipice, acrophobia, disorientation

Introduction (Chris Chesher)

With the ancient mnemonic technique of memory palaces, a trained person could remember a vast number of things by mentally placing evocative objects in a series of rooms in an intricately formed imaginary building [1]. When they needed to recall these things – an argument, fact or event – they followed the same path through the memory palace in their mind to recover each of the objects in sequence. Masters of this skill had great mental acumen, performing spectacular feats of memorisation. Also known as 'the method of loci' – this approach has recently been proven to use innate cognitive capacities of visual and spatial memory [2]. It is also featured in popular culture – such as a super-villain in the TV series *Sherlock*. Several virtual reality developers have invoked the memory palace in their design of VR spaces [3]; [4], arguing that the sense of presence afforded in immersive VR should enhance memorisation more than the same experience with a desktop computer or a list of words.

But what if a memory palace is corrupted, incomplete, dangerous or traumatic? In this paper, we explore how experiences of virtual realities of different kinds in art, philosophy and popular culture are characterised by perceptions and memories that are never objective or secure. Virtual reality experiences are often characterised by strategic modulations between sensorimotor stability (avoiding simulator sickness, glitches and breakdowns that alienate the user from the experience) and deliberate or inadvertent

disorientation, threats, challenges and even horror. Without some degree of challenge, narrative or spectacle, the experience never becomes memorable. Yet, VR is always precarious and uncomfortable, leaving the body vulnerable and the sense of proprioception confused. VR art also often explores fragments of memory extracted from indeterminate origins and recomposed.

We focus therefore on fallible memories and disturbing experiences at the edge of an abyss. Just as art can explore how human or machine memory can be unreliable, it can also explore the affect of being placed near an unknown peril. Both memory and sublime fear are subjective, malleable and prone to distortions. Whether through disease or technical breakdown, the absence of trustworthy memory leaves aporia in the memory palace – an absence where there should be presence. Whether through illusion or bodily risk, vertiginous sensation evokes affective intensities from disquiet to terror.

John Sutton: Memory Spaces

John Sutton will discuss some artistic and philosophical modes of engagement with difficult pasts. Traces – whether in the brain or in the environment – are often multiple and superposed, layered and selective at once. Any trace or place or object carries many histories, and any past event may be linked to many current residues within vast and uneven arrays of heterogeneous resources. Some art practice explores



Figure 1. Bunker 599 2013. RAAAF and Atelier de Lyon. © RAAAF / photographer Allard Bovenberg

– better than much contemporary philosophy and psychology – the forms of broken, distorted, or dizzy memories that can emerge when we take samples from distinctive regions

of multidimensional memory spaces, whether from concentrated and dense packets or from gappy eaglands.

To exemplify one counter-preservationist mode, Sutton assesses the interventionist impulse of a series of site-specific artworks by RAAAF, the Amsterdam-based Rietveld Art-Architecture-Affordances Foundation [5]. (Figure 1) Rather than leaving inhumane heritage untouched, the Rietvelds create new ‘material playgrounds’ that experiment with blasting or slicing the past away, almost setting remembrance aside in magnificent exercises of reimagining. The contrast is dramatic with what Ross Gibson calls the ‘aesthetics of seepage and submergence’. [6] describes some art practices as ‘memoryscopes’: they use ‘forensic activity’ to detect ‘some lurking change’ in a ‘shard of history’, and rechannel it in ‘a surge’ that helps us sense how ‘the past is abroad in our present’.

Rethinking some of Gibson’s key examples – from art based in the ‘piecemeal ecologies’ of Australia’s ‘ragged places’ to the ghostly disruptions of King Tubby’s mid-70s dub versions – Sutton extracts and deploys some suggestive maxims for an aesthetics of superposition. First, there is no single canonical version of the past: we are always making and remaking, though always seeking better versions. Second, we can flaunt the constructed nature of our paths through overlaid or fragmentary traces: as the Jamaican dub pioneers had it, ‘every spoil is a style’, accident or contingency producing pleasure, surprise, and movement. Third, it is not preservation but transformation that stabilizes a version, which is always an achievement, always open to contestation and renegotiation. Drawing on his experience in mixed-method studies of the embodied sociality of human remembering in the wild, Sutton offers integrative theoretical commentary on and contributions to our team’s emerging practices of navigating and celebrating some unstable arts of memory.

Robyn Backen: Leaning over the Precipice of Remembering Forgetting

If memory is the process of acquiring, encoding, storing, retaining, and retrieving information, how can we explain forgetting? Is it simply the erasure or decoding of all that has been laid down, or is the archive locked away in a memory vault? How can an augmented space integrate both visually and aurally the experience of being on the precipice of forgetting? A place where the balance between episodic and procedural memory teeters on the edge. [7]

Backen will explore her recent mixed reality (XR) research and the impact of immersive *or enclosed* experiences on an individual’s perceptions of place and memory. [8] *Leaning over the Precipice of Remembering Forgetting* (Figure 2) integrates visual with auditory elements, exploring the balance between semantic, episodic and procedural memory. Navigating the instability, distortion, and gaps in

our recollections and memory structures, the understanding of memory and cognition is challenged. This artwork delves



Figure 2. On the Precipice of Forgetting 2024. © Robyn Backen

into the intricacies of human thought processes and broken communication. It will highlight the circularity and starting-and-stopping nature of spoken conversations, capturing the fragmentary nature of forgetting, offering haiku-like poetics or splintered traces before falling off the edge.

The site of the work is at the top of a whispering gallery or a kind of dysfunctional ‘theatre of memory’, where our rights or status are limited, and our encoded episodic memory is slowly erased or decoded. [9] This embodied experience within a digital imagination shapes our perception—afloat within an acoustic space. How can we delineate or decode, ““noise” from “information,” “speech” from “groan,””. [10] Within these walls, there is a place that may be familiar to some, while for others, they will wonder... *how did I get here?*

John Tonkin: Standing on a Precipice

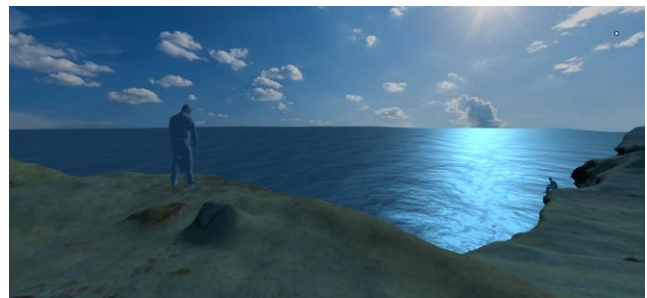


Figure 3. Precipice 2024. © John Tonkin

John Tonkin will discuss his project *Precipice* (Figure 3), a VR artwork that explores anxiety, panic and space and is informed by his personal experience of spatial phobias such as acrophobia (fear of heights) and claustrophobia. The work consists of the re-telling and re-staging of memories as abstracted virtual spaces. It extends Tonkin’s ongoing research into visual perception as being grounded in a sensorium of bodily sensations and activated through the dynamic movements of the body to consider how affect, emotion and

memory might be entangled with spatial perception. The work is informed by the perceptual theories of James J Gibson, which focused on ideas of the optic array and optical flow that are formed as we move through the world, and the stop motion works of experimental Japanese filmmaker Takashi Ito (for example *Ghost* 1984) that consist of sequences of images that were projected into architectural spaces and re-photographed frame-by-frame as the camera was moved through the space. [11] Both of these examples involve projection; a moving between two- and three-dimensional space. While mainstream approaches to VR technology are structured around a stable simulation of 3D space, how might we move beyond classical models of vision that privilege a disembodied observer to explore more fragmented, disorientating and haptic approaches to working with VR? [12] [13]

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Authors Biographies

Dr Chris Chesher is a Senior Lecturer in Digital Cultures at the University of Sydney. He co-founded the Digital Cultures program and the Master of Digital Communication and Culture. Holding a PhD from Macquarie University, his transdisciplinary approach bridges digital cultures, media, and cultural studies with a broad spectrum of fields, including philosophy of technology, science studies, games studies, internet studies, sociology of technology, human-computer interaction, social and cultural robotics, and digital humanities.

Professor John Sutton is a cognitive philosopher and holds the position of Emeritus Professor of Philosophy and Cognitive Science at Macquarie University. His interdisciplinary research spans philosophy of mind, cognitive psychology, and cognitive humanities, exploring topics like autobiographical memory, embodied memory, and cognitive history. Currently, he is a fellow at the Institute for Advanced Study in Paris, contributing to the 'Brain, Culture, and Society' program: 'City Design and the Brain: a dialogue between architecture and neuroscience.'

Robyn Backen is a Senior Lecturer at Sydney College of the Arts and is an artist whose work makes connections between art, science and philosophy. Her work is not bound by medium or scale, with large public commissions contrasting against smaller sound and light works. Her constructions and computer-generated systems often examine the cultural context of the spaces they inhabit. Drawing upon research into technology and materials, investigating patterns and systems within her practice, like language, nature, and remembering.

John Tonkin has been working with media art since 1985. His broad interests have grown out of a long-term interest in the sciences and are investigations into our attempts to make sense of the world. He is currently extending his research to explore the possibilities and problematics of VR technologies. Tonkin lectures in contemporary art at Sydney College of the Arts, The University of Sydney.