

Domestic Dissonance

Immersive Environments as Epistemic Experiments in Domestic Space

Anirudhan Iyengar

INTRODUCTION

Contemporary domestic space is increasingly permeated by technological artefacts that subtly yet persistently reconfigure its ontological composition. The domestic space is no longer self-contained or a static container but operates as a dynamic socio-technical node embedded within multiple cultural, temporal, economic and technological networks. This reflects what Eric Hörl describes as a transition from signifying modes of sense perception to a techno-ecological condition¹. Where meaning is no longer primarily produced through representation or interpretation, but emerges through distributed, environmental, and operational processes embedded in technological systems. Domestic space thus emerges as an ecology in flux, one in which sensation, perception, cognition, desire, attention, materiality and information are continuously reorganised through technological mediation. Within this condition, domestic space function as a cognitive assemblage in which media technologies actively condition perceptual experience, habits, behaviour, attention, and social relations rather than merely mediating them.

These transformations introduce subtle yet profound dissonances within everyday spatial life by disrupting the organized structure of activities and spatial attributes through which our surroundings structure our perception of the world. As American philosopher Alva Noë articulates, our lives are structured by "organized activities", and we are "captured by structures of organization."² In the domestic context, these organized habits are increasingly dictated by the networked logic of digital systems. The domestic space is susceptible to such dissonance because of its ordinary apparent familiarity. The habitual spatial ontology is often taken for granted, which renders domestic spaces a critical site or a test-bed for examining how technological mediation subtly alters perception without announcing itself as disruption.

The shift that occurs here is not merely spatial but epistemic, meaning-making process moves away from the traditional semiotic triangle of reference, signification and representation. It moves towards a more complex distributed system defined by technologies, algorithms, social contexts, virtual

materials, and software logic, amongst many other things. In this context, perception can no longer be understood as discrete, subjective, or internally located, but as emergent, relational, and environmentally conditioned.

Against this backdrop, the article asks: *How can everyday phenomenal understandings of domestic space be rethought through immersive, practice-based experiments that expose perception as relational, distributed, and continuously conditioned by techno-ecological systems?* Rather than approaching this question solely through theoretical abstraction, the paper adopts a practice-based artistic research methodology. Drawing from a broader doctoral inquiry, it positions immersive environments as *experimental systems* in the sense articulated by Hans-Jörg Rheinberger³, in which knowledge is not pre-given but emerges through situated, material, and embodied processes. Within this context, the article presents Domestic Dissonance practice-based artistic research that probes the entanglement of domesticity, media and embodiment.

The project approaches artistic immersive environments as synthetic constructs – experimental environments that contain human actions, adaptations, and appropriations capable of prompting reflective perceptions and questioning familiar structures of everyday space and reality – grounded in a practice-based research methodology that intertwines theoretical inquiry with artistic and experimental processes. Immersive technologies are not treated as representational tools or experiential novelties but as a thinking structure in action. Environments that actively disrupt conventional spatial logics of the domestic space and render perceptual processes into tangible, experiential phenomena.

Insights from it are articulated into a vocabulary of change⁴, a dynamic and performative lexicon that traces the emergence of new literacies of spatial perception. In doing so, the paper advances a nuanced and critical understanding of how immersive, practice-based artistic research can operate as a methodological and epistemic instrument for rethinking domestic space under contemporary techno-ecological conditions.

The following sections elaborate on this methodological framework through the design, implementation, and evaluation of the immersive project Domestic Dissonance.

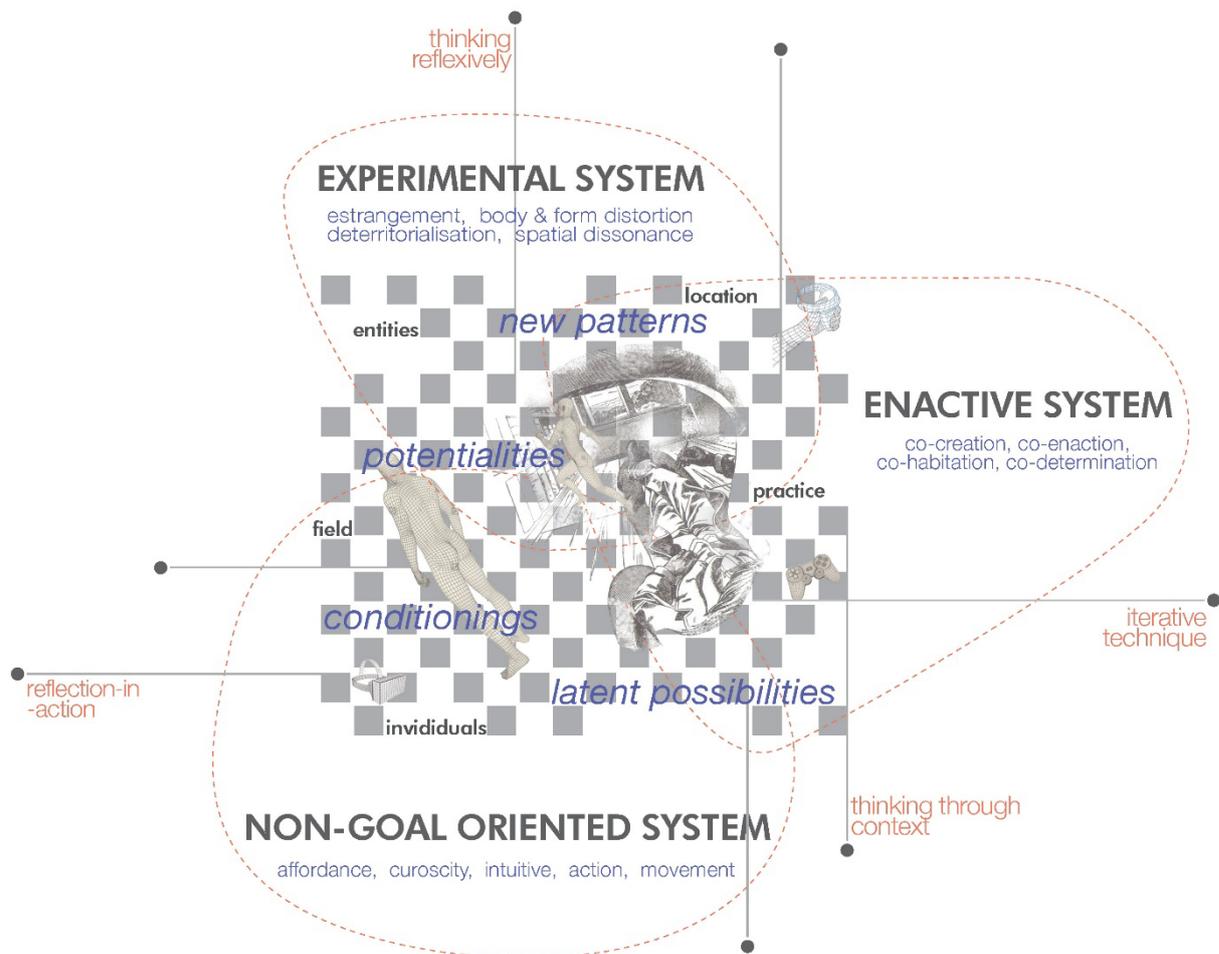


Figure 1 Project methodology diagram
 (Diagram created by the author)

PRACTICE AS RESEARCH

The research outlook is distinctive in its focus on the practice itself, becoming subject, method, context, and outcome, reflecting a practice-based research outlook where the creation of immersive environments functions as an epistemic modality that produces knowledge through practice. This approach aligns with Michael Schwab's articulation of artistic research following Hans-Jörg Rheinberger's notion of the *experimental system*: open-ended, materially and discursively entangled arrangements that generate *epistemic things*; entities embodying what one does not yet know and resisting premature closure into stable technical objects.

Within this framework, the project methodology [Figure 1] emphasizes the importance of bodily engagement with the disrupted, materially altered domestic spatial typology. The project employs a domestic apartment setting as the project environment, aiming to bring out latent, unconscious sensory perceptions, memories, imaginations, and cognitive processes. A virtual reality headset is treated as an active conditioner that delineates the parameters of participants' attention, their body representation and body image, and determines the action possibilities and the fundamental nature of spatial cognition.

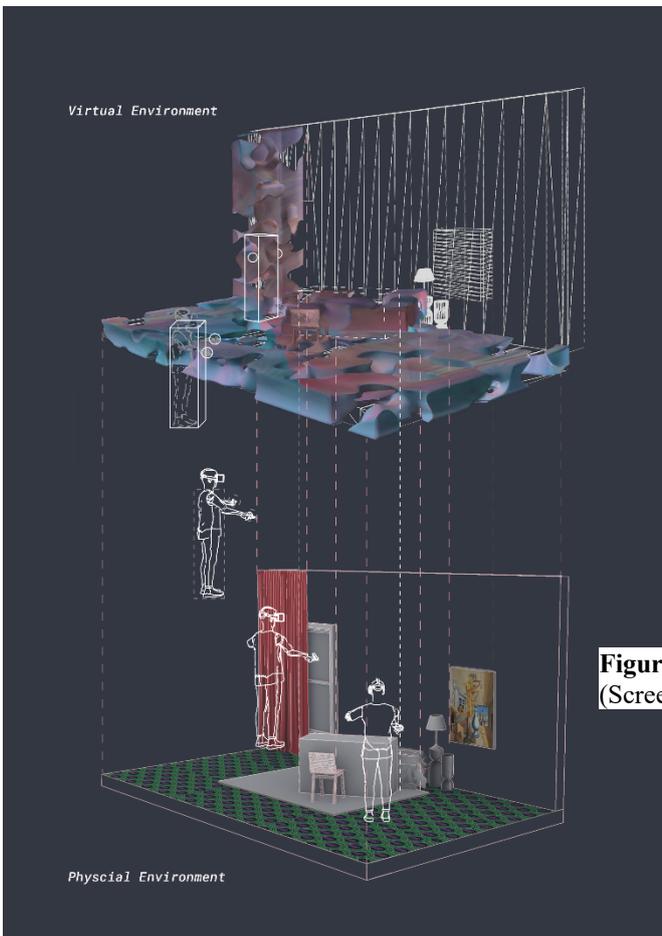


Figure 2 Mixed Reality project diagram.
(Diagram created by the author).

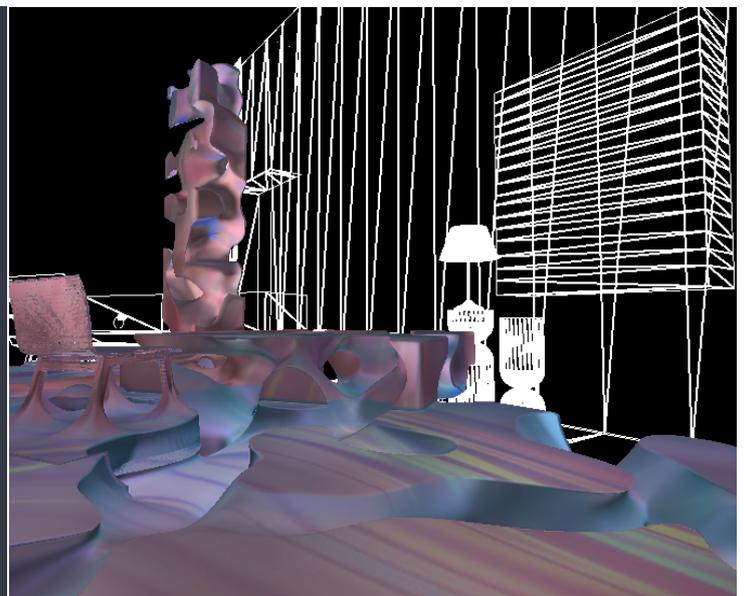


Figure 3 Virtual Environment
(Screenshot created by the author).

IMMERSIVE ENVIRONMENTS AS EXPERIMENTAL SYSTEMS

Domestic Dissonance is a mixed-reality installation that precisely maps a virtual environment onto a materially altered physical setting, creating a seamless hybrid perceptual field [Figure 2]. Spatial perception is deliberately manipulated through strategies of reconfiguration, distortion, and

estrangement to provoke new bodily responses. Thereby framing immersive environments as cognitive assemblages rather than representational spaces.

The physical space reconfigures a familiar domestic apartment. Furniture elements, such as a bed, chair, rug, and other items, are uniformly painted and materially altered. Their softness and malleability contradict the conventional affordances that disrupt spatial hierarchies and habitual bodily actions. No object asserts a fixed meaning; instead, elements enter into lateral relations that reflect, mirror, and distort one another.

The virtual environment is spatially congruent with the physical setup yet diverges aesthetically and materially. Physical forms are retained but rendered as wireframe geometries animated with fluid, gradient textures, while selected elements are exaggerated, omitted, or displaced to induce perceptual disorientation. [Figure 3] The result is a differential field in which objects operate relationally rather than through intrinsic or stable agency. The participant navigates this hybrid condition via a VR headset, simultaneously inhabiting physical and virtual space.

The human avatar is represented as a monolithic body with spherical hands sharing the material texture as the other virtual objects. The avatar erases anatomical details and dissolves the distinction between the self and environment. [Figure 4] A touch in virtual space corresponds directly to a touch in physical space, reinforcing spatial homology while destabilising body image and agency. A defining feature of DD is the seamless merging of the avatar with virtual furniture, producing a subjective–objective synchronisation in which body and space coalesce into a single perceptual continuum. This fusion induces a synthetic non-duality and ontological ambiguity, transforming domestic space from an external setting into an extension of the self, where identity and agency are continuously renegotiated.

Interaction and experience with DD are structured as a non-goal-oriented system. Participants are not directed toward predefined tasks or outcomes, meaning emerges through open-ended exploration and interaction. Agency is distributed across human and non-human entities, inviting moments of confusion, attentiveness, and reflection. Perception is understood as enactive (one of the 4Es of embodiment), arising through movement, situated doing, and relational interaction – rather than as an internal or representational process. wherein thought becomes movement, and movement becomes a form of thinking. In this respect, the project's engagement with materially discursive practices aligns with Elke Bippus's conception of the artistic experiment as a practice that deliberately

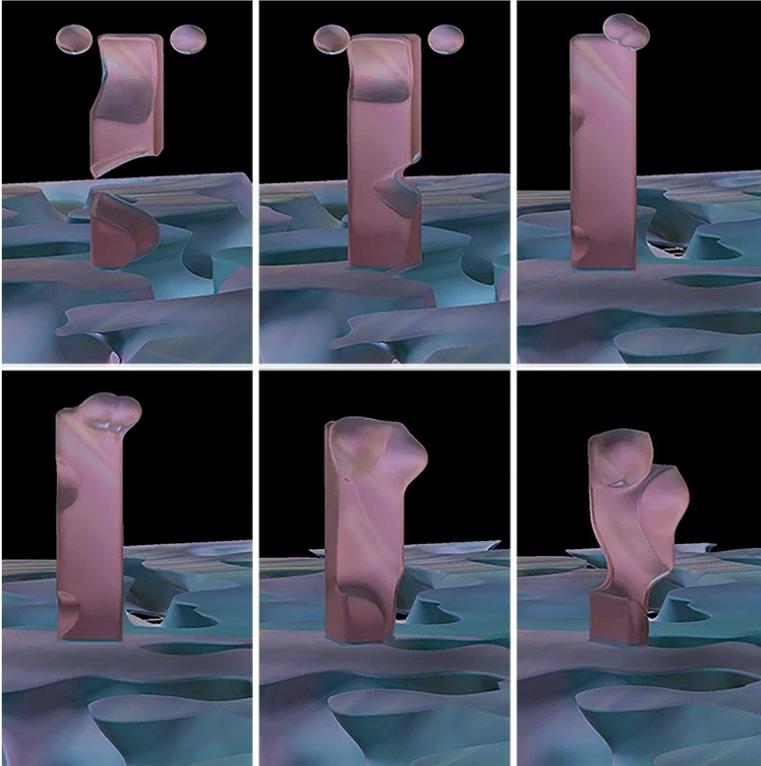


Figure 4 Screenshot of the Avatar, showing the body as a rectangular monolith and hands as spheres. The visitor interacts with their own avatar and the floor in the virtual world, merging into one phenomenal unit. (Screenshot created by the author).

breaks with established formal language to disrupt dominant spatial typologies and affordances⁵. Simultaneously, the methodology embraces Henk Borgdorff’s notion of artistic research as the "deliberate articulation of unfinished thinking"⁶ an openness that unsettles, provokes, and reorients perceptual and cognitive habits rather than resolving them.

TRANSPPOSITION AND THE VOCABULARY OF CHANGE

The methodological and spatial configuration of *Domestic Dissonance* culminates in a mode of operation that can be understood as fundamentally transpositional. Rather than producing a stable representation of domestic space, the project enacts a sequence of spatial, material, and perceptual displacements through which the familiar is repositioned without being replaced. Drawing on Michael Schwab’s articulation of transposition, the installation operates through a logic in which “what changes are the interrelations of material objects in the world, and hence the difference of meaning that those objects carry across distinct positions”⁷. The domestic apartment in DD is and is not the

same space: materially present, yet perceptually displaced; recognizable yet experientially estranged. This suspended ontological status resists reduction to representation, instead sustaining a productive ambiguity in which identity and difference coexist. The work thus functions as a *transpositional object* – whose epistemic force lies not in what it depicts, but in the relational operations it sets into motion.

CONCLUSION

In architectural terms, this transpositional logic foregrounds what the work does rather than what it signifies. The installation actively modulates perception, bodily orientation, and agency through the coupling of physical furniture, virtual materiality, and abstracted bodily representation. Knowledge emerges not as an interpretative layer applied after the fact, but as an embodied, situated process unfolding through participation. In Michael Schwab's terms, this locates knowledge not in representational outcomes, but in the *active state* of the work – knowledge in the making rather than knowledge resolved. Participant responses exhibited a range of physical reactions, movement patterns, duration of engagement and verbal reflections, articulated through the conceptual attributes of deterritorialization, enacted dissonance and multi-stability.

Deterritorialization: This is evidenced by participants who abandoned conventional upright postures to crawl on hands and knees or rub against the furniture, effectively dissolving the distinction between the human subject and the domestic surface.

Enacted Dissonance: This attribute manifested in the animal-like tendencies of visitors who cautiously probed the amorphous, materially distorted furniture, treating the familiar bed and chair as speculative, tactile puzzles rather than stable functional objects.

Multi-stability: The potential for alternate experiential registers is highlighted by the gallery staff member who, after lying down and merging with the virtual bed, expressed a desire to transfer this recalibrated perception of merging back into her own actual home environment.

Together, these form a vocabulary of change, a lexicon created by qualitative observations and embodied experiences. This vocabulary does not function as a classificatory system, but as an evolving matrix that traces subtle shifts in perceptual orientation and in the reciprocal shaping of individuals and their environments.

Domestic Dissonance demonstrates how immersive, practice-based artistic research can reframe architectural space as a site of epistemic experimentation. By suspending representational certainty and foregrounding relational, embodied operations, the project advances an understanding of architecture not as a fixed object or resolved form, but as an active, transpositional process.

Returning to the question posed in the introduction, the project does not offer a definitive reinterpretation of domestic space. Instead, it exposes how everyday phenomenal understandings of the domestic are continuously renegotiated under techno-ecological conditions, where perception is distributed, relational, and environmentally conditioned. In this sense, immersive environments function not merely as technological constructs, but as metaphors for everyday phenomenal experience: cognitive ecologies that foreground, distort, or estrange familiar spatial typologies, allowing the same space to be perceived from alternate experiential positions.

In doing so, the project positions immersive environments as epistemic objects that generate architectural knowledge precisely by remaining open, situated, and unresolved. Knowledge emerges not through explanation, but through enactment, not through closure, but through sustained ambiguity. This capacity to hold perception in a state of oscillation – between familiarity and estrangement, between self and environment situates space both as the medium and the metaphor through which new forms of knowing are produced.

Notes

¹ Erich Hörl, 'The Ecologization of Thinking', in *General Ecology: The New Ecological Paradigm*, trans. Nils F Schott (Bloomsbury Academic, 2017).

² Alva Noë, *Strange Tools: Art and Human Nature*, reprint edition (Farrar, Strauss & Giroux-3PL, 2016).

³ Michael Schwab, 'Introduction', in *Experimental Systems: Future Knowledge in Artistic Research*, Orpheus Institute, ed. William Brooks and Michael Schwab (Leuven University Press, 2013).

⁴ Anirudhan Iyengar, *Synthetic Environment: Investigating Reciprocal Human-Spatial Conditioning in Simulated Hybrid Actualities / Anirudhan Iyengar* (2024), <http://ulb-dok.uibk.ac.at/ulbtirolhs/11275861>.

⁵ Elke Bippus, 'Artistic Experiments as Research', in *Experimental Systems. Future Knowledge in Artistic Research*, ed. Michael Schwab (Leuven University Press, 2013), https://www.academia.edu/49437731/Artistic_Experiments_as_Research.

⁶ Henk Borgdorff, 'The Production of Knowledge in Artistic Research', in *The Routledge Companion to Research in the Arts* (Routledge, 2010), 45.

⁷ Michael Schwab, 'Transpositionality and Artistic Research', in *Transpositions: Aesthetico-Epistemic Operators in Artistic Research*, ed. Michael Schwab (Leuven University Press, 2018), 191.

Bibliography

- Bippus, Elke. 'Artistic Experiments as Research'. In *Experimental Systems. Future Knowledge in Artistic Research*, edited by Michael Schwab. Leuven University Press, 2013. https://www.academia.edu/49437731/Artistic_Experiments_as_Research.
- Borgdorff, Henk. 'The Production of Knowledge in Artistic Research'. In *The Routledge Companion to Research in the Arts*. Routledge, 2010.
- Doyle, Denise. *Digital Embodiment and the Arts: Exploring Hybrid Spaces through Emerging Technologies*. Intellect Ltd, 2024. <https://press.uchicago.edu/ucp/books/book/distributed/D/bo238312662.html>.
- Hayles, N. Katherine. 'Cognitive Assemblages: Technical Agency and Human Interactions'. *Critical Inquiry* 43, no. 1 (2016): 32–55.
- Hörl, Erich. 'The Ecologization of Thinking'. In *General Ecology: The New Ecological Paradigm*, translated by Nils F Schott. Bloomsbury Academic, 2017.
- Iyengar, Anirudhan. *Synthetic Environment: Investigating Reciprocal Human-Spatial Conditioning in Simulated Hybrid Actualities / Anirudhan Iyengar*. 2024. <http://ulb-dok.uibk.ac.at/ulbtirolhs/11275861>.
- Kennedy, Jenny, Michael Arnold, Martin Gibbs, et al. *Digital Domesticity: Media, Materiality, and Home Life*. Oxford University Press, 2020.
- Noë, Alva. *Strange Tools: Art and Human Nature*. Reprint edition. Farrar, Strauss & Giroux-3PL, 2016.
- Noë, Alva. *Action in Perception*. Unknown edition. MIT Press, 2006.
- Pallasmaa, Juhani. *The Eyes of the Skin: Architecture and the Senses*. 3rd edition. Wiley, 2012.
- Pérez-Gómez, Alberto. *Attunement: Architectural Meaning after the Crisis of Modern Science*. The MIT Press, 2016. <https://doi.org/10.7551/mitpress/10703.001.0001>.
- Potenziale 3. Exhibition. AUT – The Tyrolean Architecture Center, Innsbruck, Austria. 2021–2022. <https://aut.cc/ausstellungen/potenziale-3>.
- Schwab, Michael. 'Introduction'. In *Experimental Systems: Future Knowledge in Artistic Research*. Orpheus Institute, William Brooks and Michael Schwab. Leuven University Press, 2013.

BIO:

Anirudhan Iyengar is an architect, experimental designer, researcher and educator based in Innsbruck, Austria. He holds a PhD in architecture from Studio 2, Institute of Design, Faculty of Architecture, University of Innsbruck, titled *Synthetic Environments: Investigating Reciprocal Human-Spatial Conditionings in Simulated Hybrid Actualities*. His work explores the intersection of immersive technologies, spatial design, and embodied cognition. Originally from Mumbai, Anirudhan studied at The Bartlett School of Architecture (UCL) and has exhibited work in London, Moscow, Beijing, Mumbai, Barcelona, Linz, Austin, Scotland, and Innsbruck.