Dreami is the mind l to its

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Dagmar Schürrer and I wander around my studio in Schöneberg, experiencing her augmented reality (AR) app through her tablet. I hold the device with the hesitant and uncertain touch typical of handling someone else's screen; the contact with another person's device is gradually becoming as intimate an experience as body contact. The work *Dreaming is the mind left to itself* stems from her interest in how different states of consciousness enable individuals to access various constructs of reality and explore their sense of presence within these states, which can be altered in multiple ways – through the influence of drugs, meditation, virtual realities, or dreams, just to mention a few. And it's dreaming the particular alteration this work focuses on, implicitly asking whether we can place its boundaries surely and certainly, or whether its architecture is fluid and drifts in and out of what we call reality – itself a controlled hallucination. »Did you ever happen to think«, asks Ursula K. Le Guin through one of her characters, »that reality's being changed out from under us, replaced, renewed, all the time—only we don't know it? Only the dreamer knows it, and those who dream his dream« (LeGuin 2008: 71).

With a background in both fine art and biology, Schürrer is fascinated by the entanglement of sciences, technologies, and consciousness, and the ›feedback loops‹ generated by their dance; indeed, artificial brains often offer unexpected insights into the human mind, which in turn enables the development of more sophisticated technologies. But we are not other than these technologies; we are entangled and continuously becoming with each other, as Donna Haraway began to state in the 1980s – an era before the widespread use of cell phones and personal computers (Haraway 1991: 149–181).

The AR app scans the room and recognizes horizontal planes in it, creating a virtual model of the surroundings. Spheres, tentacles, geometric shapes, objects, and a humanoid figure appear on the screen. They venture into a virtual space that now merges with the structure of this room, its own technologies, the organic life of the many plants in their apparent stillness, the concrete 13-story building being erected outside my office, the sunlight which is still penetrating the glass through this last window. The digital figures in the work exist in their own overlapped, and somehow entangled, reality. We are in control and can move the objects around in space.

I wish I could do the same with the building.

/5 Dreamtime: The neuroscientist

It is the year 2020. The science of dreams is far from being settled, but the theories are abounding: some suggest dreams consolidate our memories; others that they help us to forget selectively; some argue they help our emotional regulation, or prepare us for problems we face in our wakeful state. Erik Hoel sits in his lab at Tuft University in the Greater Boston area poring over these scientific papers, and he is not convinced by any of them. In fact, he believes that the science of dreams is in its primitive stage and that there are many lessons for neuroscience to be gleaned from machine learning algorithms, particularly from the most advanced artificial brain ever created, the deep neural networks.

While looking at the functioning of this artificial intelligence, he understands the symmetry: deep neural networks struggle to strike a balance between memorization and generalization. As they focus on one particular dataset and learn to manage it, they can become less proficient in generalizing to others. In mathematical models, this phenomenon is called ›overfitting‹, and can be mitigated by injecting ›noise‹ in the model, such as corrupting input datasets. Likewise, in our lives, experiencing highly similar situations every day would make us biased in our perception and sampling of the environment, leading to the risk of an overfitted brain. Exactly as artificial neural networks do, our minds also need to unlearn, and that biological

/1
Space is my anchor, just like time
I feel present
Arising from the interaction of billions of neurons
I feel space, persistent and fundamental
Left and right, up and down, front and back, inside and out
Perhaps all places in the world are in fact one?

/2
Shifting down the rabbit hole
The dreamer loses all inputs
Embracing present, past, and future
Assembling electrical signals to folds of memories
Chemical transmitter to new knowledge
Drifting down to another sense of presence
All alone like a machine

/3
Do you dream in color?
At one time we assumed our dreams to be in black and white
Forgotten colors, altered reconstructions, before technicolor
Descriptions of the impossible
Images evoked by fiction, in indefinite shades
We do not just remember, we simply imagine to know

›noise injection‹, he argues, is provided by our dreams. »It may seem paradoxical«, he writes, »but a dream of flying may actually help you keep your balance running« (Hoel 2020: 12).

During his teenage years, while working in his mother's bookstore and avidly reading novels, he already intuited that storytelling was more than mere entertainment. Now, as a fiction writer himself, and despite scepticism from other scientists, he is firmly convinced that fiction, and perhaps the arts in general, fulfil a vital cognitive function: they act as artificial dreams, safeguarding our brains against overfitting.

In his novel *The Revelations*, the protagonist is a scientist consumed by the quest for a theory of consciousness. Occasionally, Hoel ponders whether this risk is the very reason he chose to focus his scientific research on more manageable questions.

/4 Dreamtime: The writer

LSD, pot, hash, speed, and especially prescription drugs like Stelazine, Valium, Librium, Dexamyl, Benzodiazepines, plus various street-outsourced amphetamines of all kinds. He mastered their mix like an alchemist to achieve the exact state he sought – plus the one to help manage the side effects. Science might have shown that a comprehensive theory of consciousness is persistently elusive, but Philip K. Dick's daily praxis demonstrated that its states can be altered under a precise control, at least until the body recovers from all that chemical intake. Most of the time, the synthetic cocktail was aimed at keeping him laser focused on writing.

And he was a prolific writer indeed, all things considered. During his fourth honeymoon (with Nancy Hackett), in 1966, he managed to write the whole *Do Androids Dream of Electric Sheep?*[1] It must have been a turmoiled holiday because the future domestic marital life described in the book is equipped with a »mood organ«, a technology able to set you in the exact affective state you desire by dialling the corresponding number. Dick already knew how to craft a mood organ with chemistry, but this hadn't mitigated the frictions with other humans, and neither the abrasive qualities of reality.

In his book, androids are endowed with highly evolved artificial intelligence to the point of being almost indiscernible from consciousness, and become rebellious against their human enslavers. At a time when TV is the most advanced widespread

1 The book was published in 1968.

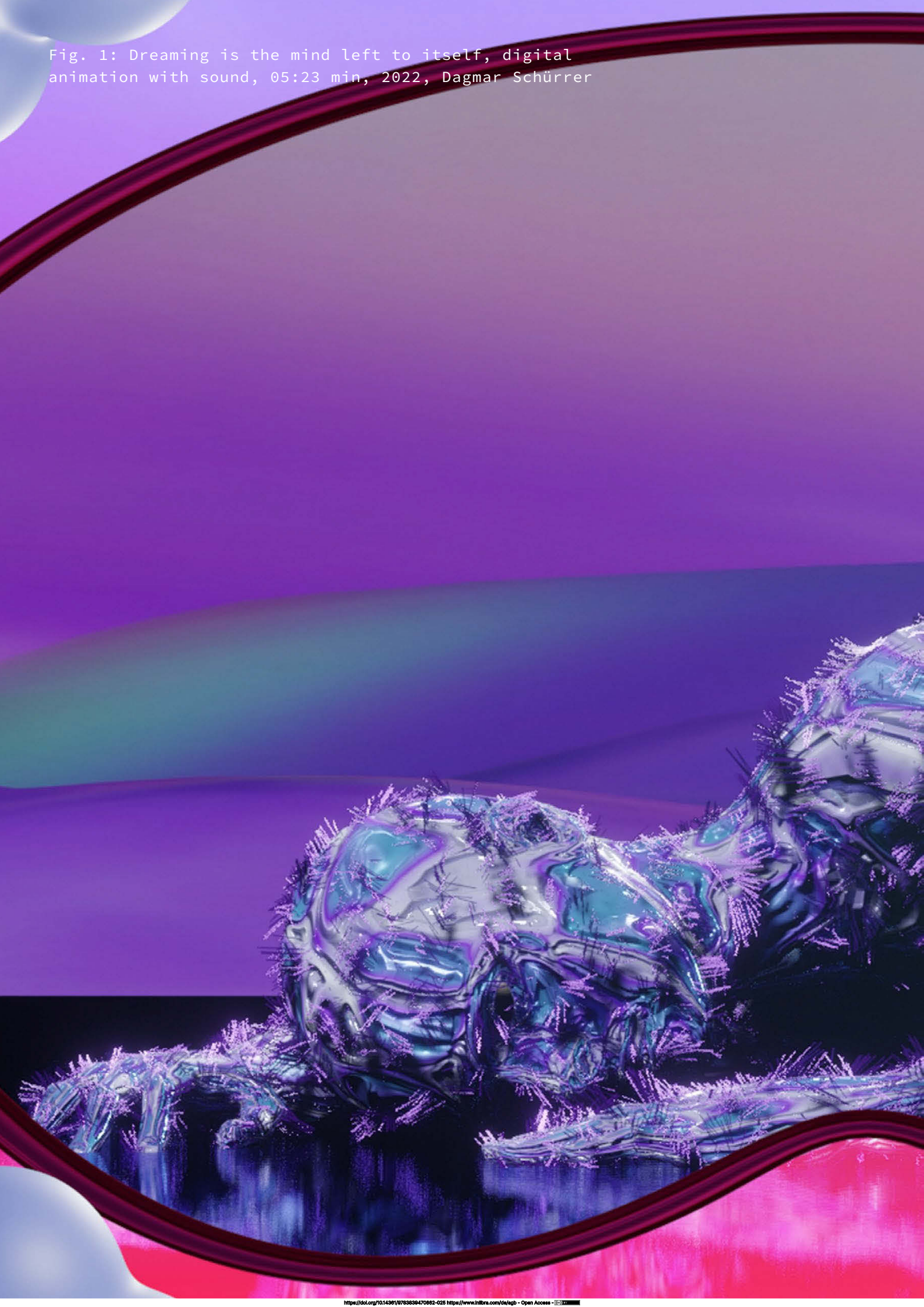
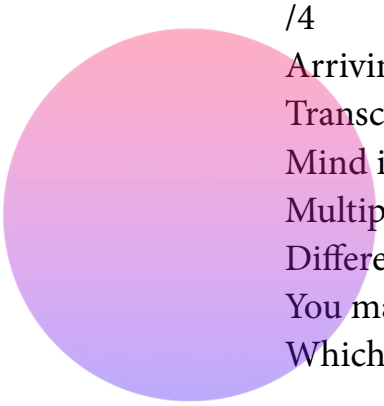


Fig. 1: Dreaming is the mind left to itself, digital animation with sound, 05:23 min, 2022, Dagmar Schürrer



/4
Arriving in digital meditation
Transcending the illusive perception, constantly reset
Mind is the knot which joins consciousness and matter
Multiple algorithms transpire in new forms
Different experienced realities repeating like drops in the ocean
You may choose your presence
Which presence would you like to feel?

device, Dick already sheds serious doubts about our future ability to distinguish humans from androids. Moreover, he anticipates that the artificial body and mind of robots could become integrated on a subconscious level, like in humans, producing their own dreams. If this happens, will the phenomenology of an android's dream differ from that of a human, and become the new Turing Test?

Haunted by his intense oneiric life, Dick began doubting we could distinguish reality from dreams. At some point, he became convinced that his book was not a work of fiction, but a factual report written by his dream-self. He often woke up with the certainty that the most primordial questions about life and the universe had been revealed to him in his sleep, only he was unable to remember them. He understood this as a cosmic safety measure and was a bit disappointed, but also understanding of why higher intelligences would not trust humanity with their innermost secrets.

/1 Dreamtime: The Athsheans

In a matter of months, Terran humans had located the planet Ashte, landed their ships on it, and brutally enslaved the indigenous population. Observing these violent beings, Athsheans were somehow not shocked to learn that this had happened many times before on the Terrans' home planet of Earth. Despite scientific evidence to the contrary, Terrans refused to consider Athsheans humans: the Athsheans were one-meter tall, covered in green hair, and they did things Terrans labelled primitive, like showing reverence toward all life-forms and matter, and being especially caring of their forest, which extended across their entire world (Terrans were there for the wood, which had been fully replaced by concrete on Earth). In the Athshean language, the word for ›world‹ was ›forest‹ and, in fact, there was much to plunder. Athsheans were equally astonished by the Terrans' ruthless extraction and by their lack of training in dreams, which they considered other than reality: »They only dream in sleep«, they lamented, horrified, »if they want to dream waking they take poisons so that the dreams go out of control« (LeGuin 1972: 55). »Dream-time« and the »world-time« of Athsheans were porous, entangled, and equally defining aspects of reality.[2]

/2 Dreamtime: Night vision log

Lazy in the morning, yet fundamentally rebellious against the amnesiac nature of dreams, I keep a dream journal or, as Ottessa Moshfegh calls it, a »night vision log« (2019: 60). I began this practice after meeting an indigenous woman from Swedish Sápmi who offered »dreams-on-demand«, claiming she could help people with difficult decisions by visualizing the right one in her dreams. I wasn't drawn to the business model (which seemed to clash with some Western romantic expectations I didn't even know I had), but rather deeply intrigued by the idea that dreams could hold answers to our waking questions.

»Can I learn to do this too?« I asked with the cheerful ingenuity of those who would try anything once. She said, »Sure, you can try, but it's going to take your whole life. I've been training since childhood.« It was a chilly summer in the north Swe-

2 In another book, *The Lathe of Heaven*, Ursula K. Le Guin writes that »everything dreams«, embracing the notion that even matter itself may possess a form of experience. This idea has been more recently popularized in Western philosophy through New Materialisms, but the notion that dreams and, consequently, consciousness, are inherent properties of all matter – whether living, non-living, or existing in the spaces in-between – is a prevalent belief in indigenous cultures. Munya Andrews, a Bardi writer from Western Australia's Kimberley region, discusses this indigenous perspective in her 2019 book, Journey to Dreamtime, where she describes the Aboriginal concept of Dreamtime in terms strikingly similar to those Le Guin applies to the Athshean culture.

dish town of Kiruna, and I was carrying *The Word for World Is Forest* in my backpack. This must be a sign, I thought, generally prone to interpret any coincidence as a meaningful spacetime synchronicity.

During that period, I could almost never remember my dreams, and it took a tremendous effort to discipline myself to report them while still half-awake. Over time, it became as feasible as training an invisible muscle (exhausting yet effective), and I was happy (as often as horrified) to rescue all those unconscious images from the brink of oblivion. Here's my routine: I wake up in the morning and keep my eyes closed, focusing only on the dream that just ended. I repeat it in my mind, crystallizing fragmented images and half-forgotten narratives, to make sure they won't vanish entirely – it happens so quickly, as any intrusion from reality yanks me back into the awareness of my bedsheets and geolocation, into the here-and-now. Eyes still closed, I grab a pen and notebook on my nightstand and start writing in complete darkness.

During these fleeting liminal moments between REM phase and wakefulness, I sometimes sense that consciousness might not originate from within. Instead, it could be a reception of signals traversing through electrical impulses across multiple spacetime dimensions and states of matter – living, non-living, and all that exists in-between. These signals are the collective, planetary pulse of matter, which reverberates universally.

In a few minutes, life becomes too real and I've completely forgotten what I dreamt or wrote. Yet, I have managed to carry a trace of the dreamtime into the world-time, to weave them together for later.

/5
Every night we redefine our patterns
Just like artificial networks, we need some noise to un-learn
Allowing altered realities to bend the insights
Using structured hallucinations to generate warped and corrupted input
Consciousness in a pure and isolated form
Improves abstraction and reasoning in the embodied self
Finding new anchors in the clouds, new metaphors for complex systems
Dreaming is the mind left to itself

/3 Dreamtime: The artist

The year is 2021. Dagmar Schürrer stumbles upon an academic paper by Erik Hoel that introduces his Overfitted Brain Hypothesis – an innovative theory on the function of dreams that transcends dry scientific language and stirs her creative spirit. Ideas converge through minds sensing each other from a distance of 6,077 kilometres. Words flow out in poetic prose, and her text becomes the cornerstone of a new artwork – its voiceover.

The process of digital world-building bears a striking resemblance to the concept of fiction as artificial dreaming. In Jorge Luis Borges's short story *The Circular Ruins*, a dreamer attempts to sculpt a complete man from the incoherent and vertiginous substance of dreams. Similarly, Schürrer chooses not to merely represent her dreams, but to craft dream-fiction through a digital world-building. This process is marked by optical elements influenced by digital 3D aesthetics (a style she dubs New Surrealism) intricately woven through subjective associations. While Borges's unnamed character begins with the vision of a beating heart, Schürrer's nascent world starts with the »dreamer« – a liminal android-like figure of metallic features and striking purple skin tone. It inhabits a realm painted with a vibrant spectrum of colours, mirroring the influence of our daily exposure to chromatically saturated digital images.

Schürrer perceives a profound connection between the act of dreaming and the realm of artificial intelligence, viewing them as symbolic touchpoints in the intricate dance between humans and technology. When our dreams are most vivid, during the REM phase of sleep, our bodies are immobilized to pre-

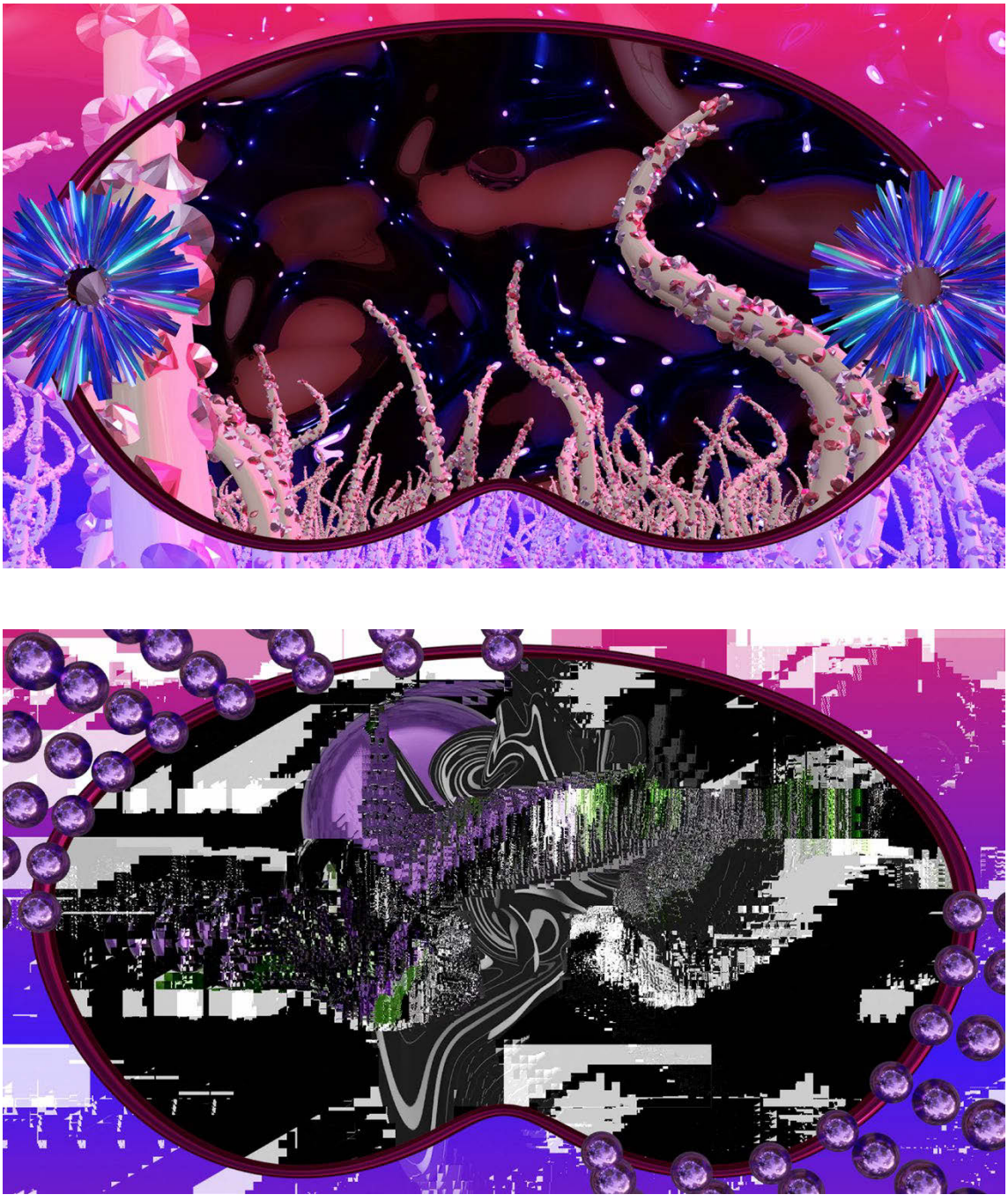


Fig. 2: Dreaming is the mind left to itself, digital animation with sound, 05:23 min, 2022, Dagmar Schürrer

vent us from physically acting out their often wild narratives. Yet, our muscles undergo subtle contractions, producing minuscule, precise movements that seem to slip through the gaps in this protective paralysis. While Hoel's hypothesis envisions dreams as a process of unlearning within a biased environment, neuroscientist Mike S. Blumberg proposes that these twitches serve as a means through which the brain learns the body, building a sense of self. It seems like the cartography of our physicality requires constant recalibration, with our consciousness perpetually occupied in keeping pace. Blumberg takes it a step further, suggesting that applying these twitches to an artificial body could be the key to the robot's self-awareness of its own mechanical form, enabling it to learn self-repair.

In essence, the enigmas of our dreams become a gateway to understanding technology and vice versa, revealing the intricate entanglement of human and artificial intelligences as they co-evolve and become with each other. In 1985, Donna Haraway was already convinced that »we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs« (1991: 151).

In Borges's novel, the »son« of the enigmatic dreamer yearns for existence, unaware of his spectral nature. Simultaneously, the dreamer discovers he's a mere creation of another's subconscious. Yet, Schürrer finds resonance in the notion that »embodiment is overrated«. To her, the distinctions between digital and analogue, dream and wakefulness, blur into a singular, immersive experience. In her new world, which takes shape as a video and augmented reality experience, boundaries dissolve.

She names it *Dreaming is the mind left to itself*.

Vanina Saracino (she/they) is an independent curator, film programmer, writer, and lecturer. With extensive international experience, Saracino has curated exhibitions globally, including co-curating two editions of the Screen City Biennial: Other Minds at Archenhold Observatory (Berlin, 2022) and Ecologies – Lost, Found and Continued (Stavanger, 2019). Since 2021, Saracino has served as Adjunct Professor of Experimental Film and Media Art at Universität der Künste (UdK), Berlin.

Dagmar Schürrer is a digital artist working in the field of expanded animation and extended reality (XR) technologies, with significant international presentations at the ICA London, the Centre Pompidou Paris, the Louvre Paris, HKW Berlin, the Eunam Museum South Korea, Ars Electronica Linz, ISEA Brisbane, and Tate Modern London. Since 2018 she is a research assistant and workshop leader for artistic XR development at the University of Applied Sciences Berlin.

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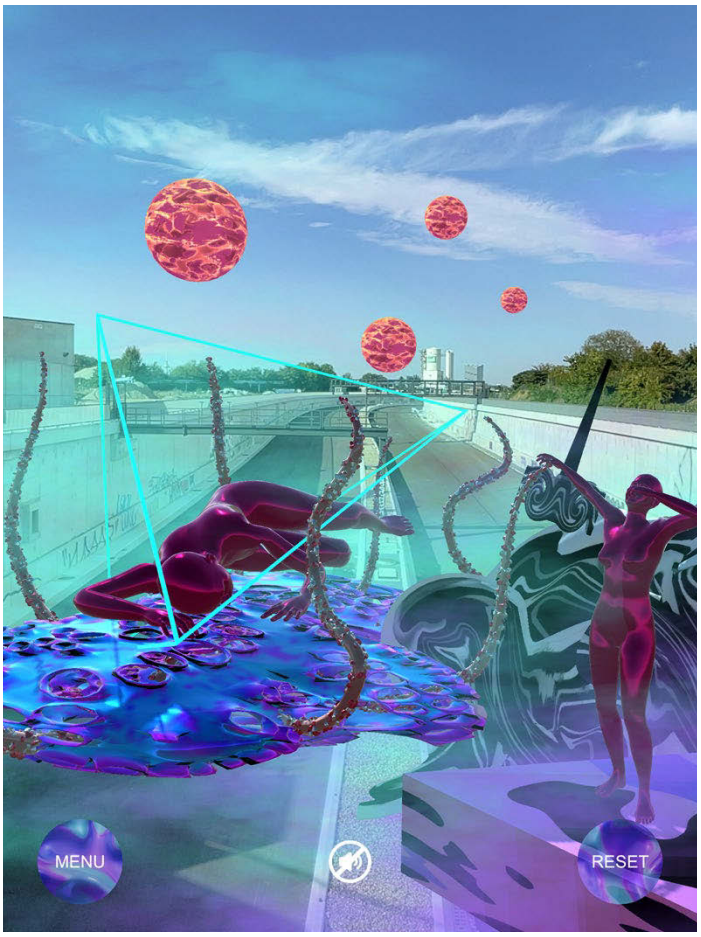

The animation Dreaming is the mind left to itself is accompanied by the augmented reality application Dreaming Mind AR. You can download the app by scanning the QR code below:

Link to AR App for Android

Link to AR App for iOS