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KINDRED SPIRITS:

Smell fictions + performative design research

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Abstract: This paper explores the associative power of smell as a performative design research medium, to trigger episodic memories of addiction patients from Mistral rehabilitation clinic, The Hague. It describes the use of smell as a speculative and storytelling device, leading to the design of the Smell-Memory Kit: The Molecules That Matter, to support memory recall and conversations evoked by particular smells. The

sensory research was used to discuss the impact of the physical space on the wellbeing of patients, leading to the co-creation of the Kindred Spirits species; design probes functioning as ‘companion species’, which allowed patients and staff to talk about underlying behaviours and motivations surrounding therapy, within the clinic’s ecosystem. In an interplay between the mundane and the fantastic, the project balances real needs with imagined desires, building on sensory experiences to encourage the contemplation of alternative perspectives to the promotion of longterm behavioural change in addiction therapy.

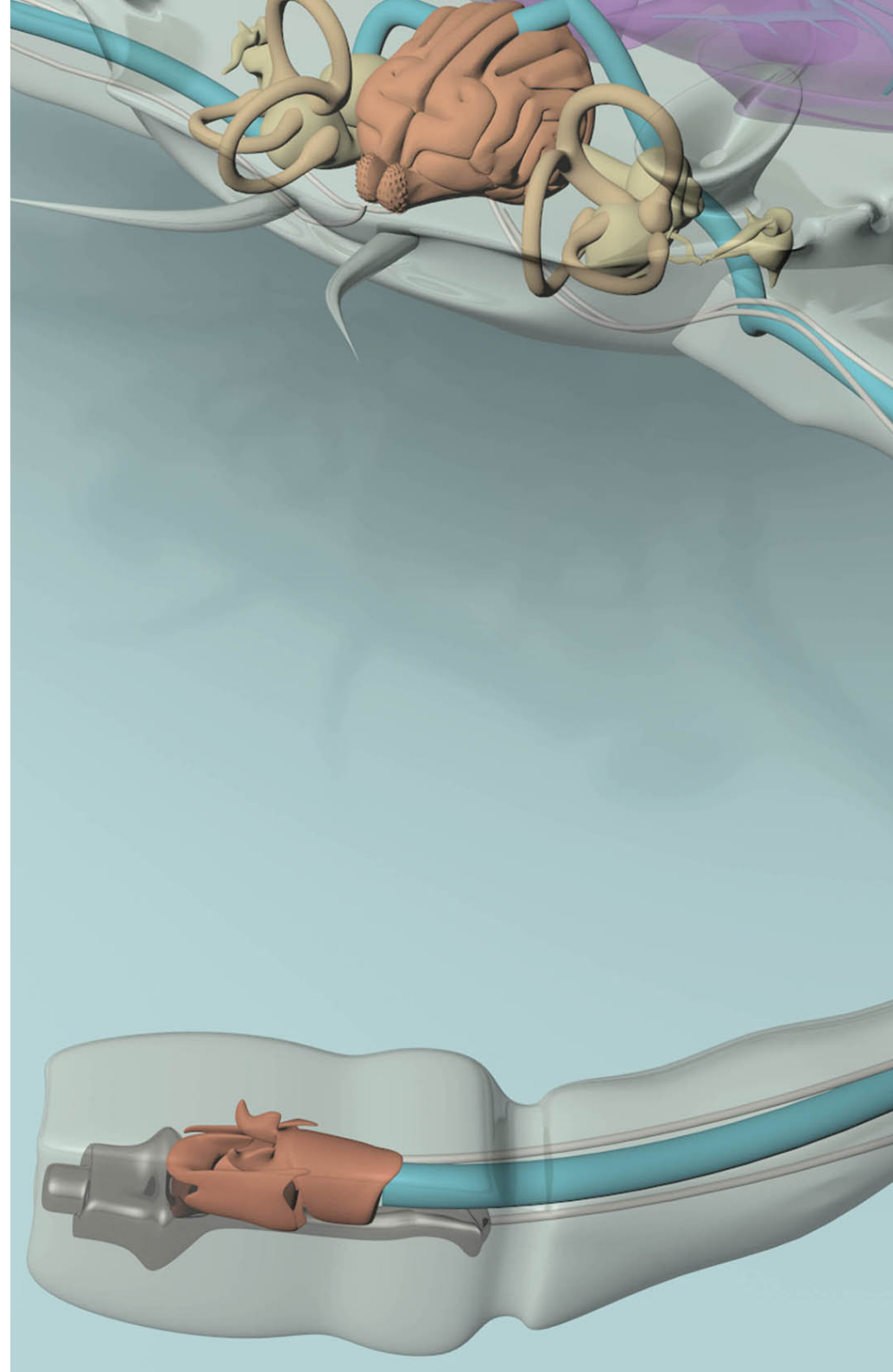
Keywords: Design fictions; Performative research; Smell memory; Addiction care; Experience; Fantasy.



Introduction

Kindred Spirits is a design fictions research, developed alongside patients and staff from Mistral rehabilitation clinic in The Hague. The care facility is managed by dutch healthcare provider Brijder and offers people between 12-23 years of age detoxification, observation / assessment and short-term treatment for addiction and psychiatric problems. In this context smell was used as a research medium to explore the behaviour of addiction patients and envision alternative possibilities for existing systems and services within the clinic. The work was developed within the multidisciplinary context of the G-Motiv project, part of the Creative Industry Scientific Programme (CRISP), a dutch government funded initiative that focuses on the creation of Product Service Systems (PSS). G-Motiv researched game elements as prompts for behavioural change, through a broad multidisciplinary team consisting of PhD researchers of Delft University of Technology, design researchers of Design Academy Eindhoven, three game companies and several health providers such as Brijder, specialised in addiction care.

The artefacts presented in this conference respond to the use of smell as a performative research medium and speculative narrative trigger. The smell-memory kit: The Molecules That Matter, contains 8 naturally occurring smell molecules that facilitate a series of smelling exercises and conversations through smell associations. These smell samples are



supported by an instructions manual and the graphic representation of a 'smell-web', illustrating the natural links between the molecules according to their occurrence in nature. The use of smell as a storytelling device is documented in this paper through the on-going contextual and sensory research at Mistral, which helped frame a second speculative line of investigation, presented by the Kindred Spirits species artefacts. These are speculative designs of fictional companion species, inspired by the sensory experiences of the patients, which helped stir critical discussions on addiction care within the clinic. Rooting the fantastic within the mundane helped stretch the limits of daily interactions, acknowledging the potential of unconventional relationships grounded on personal experience, to explore alternative perspectives for addiction care.

Smell Fictions

Within G-Motiv, there is a strong focus on the use of game elements, such as fantasy, to promote long-term change as "achieving lasting change is difficult (...) people are 'helped' to change using therapy, training and coaching, however these often only result in short-term effects". Fantasy often addresses emotional needs of people, facilitating experimentation with new constructs in low-risk environments (Malone & Lepper 1987). Design fictions can provide conversational platforms (Candy, 2010) through which parallel stories can be told, addressing human needs and desires, beyond market, legal and institutional demands. Those liminal, 'possibility spaces' between reality and fantasy, or the realities that could

be (Candy, 2010), become vivid accounts through the power of narrative and storytelling, empowering individuals whilst suspending disbelief about change.

At Mistral, patients have to tell their stories for therapy, which is not often easy as they tend to elicit strong emotions. The treatment lasts up to four months and is mainly focused on improving function without the use of agents, gambling or gaming, increasing necessary skills for coping with addiction / other psychiatric problems and the social environment, psychoeducation and rehabilitation. The patients' stories are therefore often referred to as 'health narratives', as they sometimes reveal behavioural patterns that can aid or hinder treatment. Understanding other ways or mediums to tell or experience these stories became a first focus of the research, leading to the use of smell.

We establish associations to smells and these emotional recollections precede any understanding of the odour (Herz 2011). Such involuntary response to smell, is due to the anatomical proximity of the olfactory system to the limbic system in the brain which deals with emotions, motivation and the association of emotions with memory. Literature has long used this associative power of smell to describe strong sentimental recollections triggered by smell or taste. In his novel *À la Recherche du Temps Perdu* (In Search of Lost Time), Marcel Proust coined the term 'involuntary memory', occurring when certain cues trigger recollections



from the past, as described through a personal account, when a magdelaine soaked in coffee reminded him of his aunt:

“When nothing else subsists from the past (...) after the people are dead, after the things are broken and scattered (...) the smell and taste of things remain poised a long time, like souls (...) bearing resiliently, on tiny and almost impalpable drops of their essence, the immense edifice of memory.” (Proust, 1981)

Smell is thus an optimum medium for recalling vivid fragments from the past, as most odours acquire meaning by learning and are paired with memory through association (Smeets 2009). Similarly, tests show that odours can elicit behaviour and implicit associations to certain odours can even cause physical illness (Bulsing 2009). Smells associated with trauma can therefore leave a strong imprint, as our senses are manipulable and affected by our beliefs.

Performative Research

In a series of first meetings with GZ-psychologist Berend Hofman, we discussed the use of smell as a narrative trigger, to probe the emotional anchors that encode experience and support memory recall. His interest on the primal act of smelling and its link to emotions in the context of therapy, inspired a series of smell exercises in the clinic through which we explored the role of smell in storytelling. These sessions were enabled

through the active support of Renske Spijkerman, senior researcher at Brijder (PARC), linking to a new treatment program started in 2013 with Cognitive Behavioral Therapy and the Social Competency Model as basic methodology, with a strong emphasis on motivational interviewing, systems-oriented and thinking and acting as a method of treatment. Within this context the smell exercises would link to the motivational aspects of the therapy, creatively engaging with narrative.

EXERCISE 1: SMELL - MEMORIES

Over several weeks, we worked with a reduced group of five to six patients, performing a series of smelling exercises to understand the associative power of smell-memory. A prerequisite for these activities was the voluntary participation of the patients, which inevitably influenced the continuity of some participants due to mood swings or a lack of interest as the sessions progressed and their novelty waned off.

A secondary challenge was the selection of the smell samples, as everyone establishes their own associations to odours. In collaboration with International Flavours and Fragrances (IFF), a series of composed fragrances were selected due to the cultural context of the clinic and age group. These consisted of the smell of ‘zwitsal’ (a dutch commercial brand of baby products with a characteristic fragrance), ‘speculaas’ (a dutch, cinnamon-like biscuit) or the recomposed smell of dampness (reminiscent of the excessive humidity in the netherlands), amongst others.



Figure 3. (above) Smell-Memory exercises with the patients.



Figure 2. (right) Blind-smelling exercises made the participants engage in conversation



Figure 1. (above) The Mistral Clinic, context of the research.

Following the advice from experienced perfumers (or ‘noses’) from IFF, participants were asked to smell each fragrance blindly and write down or sketch their memories, feelings or initial reactions to the smell. Attempting to guess the origin of each sample, participants began to share their experiences amongst each other and we realised that the very act of smelling elicited conversations.



The decontextualisation of the smells within the exercises had created a contrast between the perceived familiarity of some samples and the experienced difficulty in identifying them. The participants resorted to their own memories, emotions and immediate physical reactions, to define each smell.

EXERCISE 2: SMELL- STORIES

This exercise reinforced the use of smells as narrative triggers, precisely because we experience them in an abstract manner. The lack of habit in using our noses turns the act of smelling into an exploratory adventure, engaging with our surroundings from a different dimension. Building up on these ideas, a second iteration of exercises were created to explore the abstract potential of smell stories. A series of odours relating to basic everyday interactions - such as mint, faeces, forest, smoke - were printed onto white, A4 papers. This time participants were asked to 'paint' smells, illustrating their memories on each page, and combine these to create a storyline.

The open framework of the exercise proved difficult for the patients and they struggled with its abstractness, not grasping its aims. This resulted in linear sequences, with a strong fixation on basic, daily routines such as washing, smoking a cigarette, taking a walk, etc. One patient managed to abstract his puzzlement with one smell, represented by 'getting lost' in the woods. Discussing the outcomes with the clinicians from Mistral, it

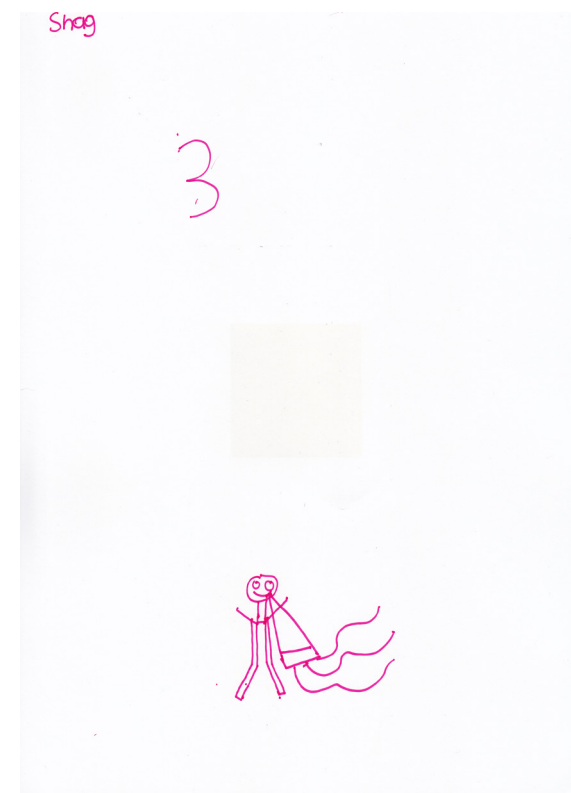
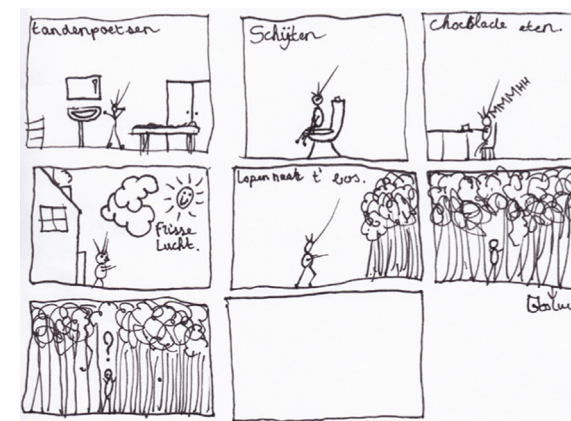


Figure 4 + 5.
Patients attempted to create their own stories from the abstract experiences with the printed smells.

discuss the different stories that arise from one smelling session together with the participants.” (Rajmakers 2013). The experiences showed that sharing personal anecdotes or stories is easier when there is a shared reference, such as the smell, despite the different interpretations. Building on these reflections, the concept of smell-webs was developed further, informing the design of the smell-memory kit: The Molecules That Matter, for Mistral.

THE SMELL - MEMORY KIT: THE MOLECULES THAT MATTER

Throughout the development of the smell exercises, patients had suggested integrating certain smells within the patient intake conversations, to alleviate feelings of anxiety and stress. This suggestion helped consolidate the idea of the Smell-Memory Kit: The Molecules That Matter.

Within the kit, a molecule of Methyl Mercaptan, found in spoiled refrigerated chicken, marijuana or faeces, is linked to the molecule Methyl Anthranilate, found in the smell of jasmine oil. Extending this process, led to the selection of eight naturally interrelated molecules, namely: α -Terpinene, Beta Pinene, Methyl Mercaptan, Dimethyl Sulfide, Dimethyl Trisulfide, Methyl Anthranilate, Geosmin and Vanillin. A prototype was developed with IFF, coating a series of polymer pebbles

with the molecules, along with an instructions manual. This first model was implemented during a ‘blind’ test, in a series of smelling exercises between a patient and his ‘buddy’ in the clinic, led by a clinician.

With their eyes closed, the patients were asked to smell each sample and write down their first impressions, feelings or memories triggered by the smell. Smelling again, they were asked to expand on their recollections and experiences with each smell. In this manner, the exercises slowly led to an exchange of memories and personal stories. As there is no right or wrong answer, it is simply the personal experience that matters, the process creates an objective yet sheltered context, where both patients are encouraged to talk openly about themselves. During this first test, one patient explained that the smells had become “the object of the conversation” alleviating the pressure he felt when speaking. Furthermore, the patient’s buddy said to have ‘learned more’ about the patient during the exercises, than in the previous week living together. This experience served to design a second iteration of the kit, which is currently under further development.

Figure 9.
Smell exercises prompt
recollections of past
experiences



Figure 10 + 11.
The kit is composed of 8 naturally occurring molecules





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EXERCISE 4: SENSORY INTERVIEWS

The potency of smell as a communication tool facilitated a deeper exploration of the landscape of the clinic, through a series of sensory interviews with the patients. Each participant was asked to draw a map of the clinic and select 3 specific locations, based on their smell, sound and colour. They later provided a tour of each location and, where possible, we collected smell samples, sounds and visual snapshots, whilst discussing their experiences in each space.

Exploring the clinic through these experiences showed that the perception of the clinic often clashed with the activities held there. The living / dining room for example, where patients spend 80% of their time eating and socialising in-between therapy sessions, was perceived as the most stressful space, due to an excess amount of noise. The hallway's floor colour was anxiously perceived due to its brightness, particularly the strident red detoxification wing of the clinic. Similarly, most patients recalled the smell of bleach during their first visit, despite becoming accustomed to it over time.

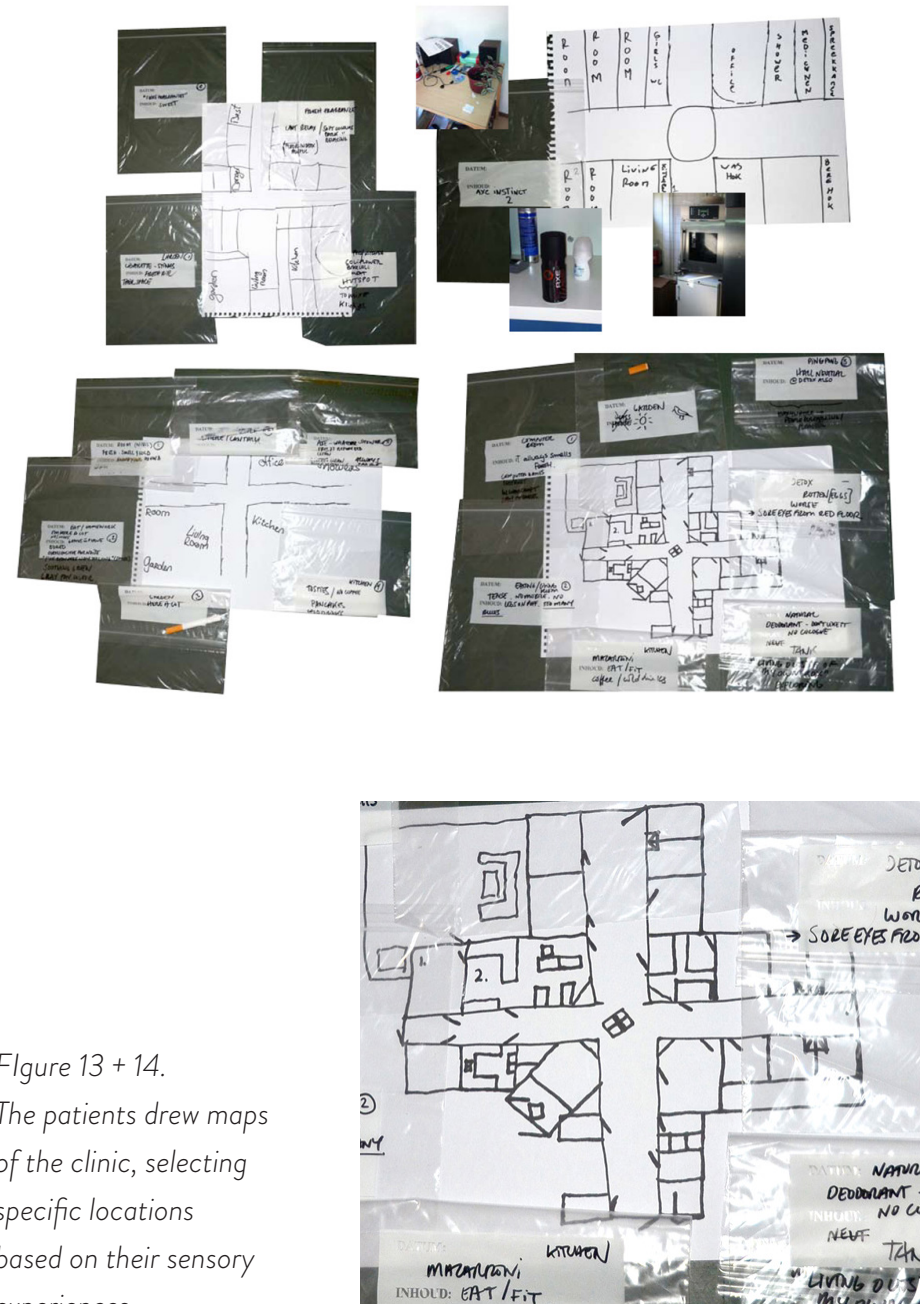


Figure 13 + 14.
The patients drew maps of the clinic, selecting specific locations based on their sensory experiences.

EXERCISE 5: KINDRED SPIRITS

The sensory interviews revealed the need for focus points in these locations to enable a space for physical / mental abstraction and personal introspection. In a series of speculative sessions we created fictional creatures to populate the different spaces identified during the interview, in response to the sensory experiences in each location. Much like the Bill Gaver's notion of 'threshold devices' (Gaver et al. 2008), these creatures could offer novel views on the 'domestic situation', in this instance 'the clinic's environment', as 'rovers of their emotional experiences', evolved to fulfil particular niches.

Inspired by Matt Jones' ideas on the behaviour of sensate devices (Jones 2012) and Donna Haraway's notions on significant otherness and companion species (Haraway 2003), we began to metaphorically explore various daily encounters within Mistral, depicting the clinic as an ecosystem of human and non-human actors. Understanding the clinic as a habitat that shapes species both physically and psychologically, we used fantasy to engage with the less explicit behaviours that inform the patients' daily interactions amongst each other and with the space.

Figure 15.

Initial prototypes of the companions.



Figure 16 - 17.
Initial prototypes of the companions.



THE KINDRED SPIRITS SPECIES

“Sometimes the house of the future is better built, lighter and larger than all the houses of the past, so that the image of the dream house is opposed to that of the childhood home... Maybe it is a good thing for us to keep a few dreams of a house that we shall live in later, always later, so much later, in fact, that we shall not have time to achieve it. For a house that was final, one that stood in symmetrical relation to the house we were born in, would lead to thoughts—serious, sad thoughts—and not to dreams. It is better to live in a state of impermanence than in one of finality” —Gaston Bachelard, *The Poetics of Space*.

The term ‘*kindred spirits*’ alludes to some-one(thing) who shares beliefs, attitudes, feelings or features with oneself. Each Kindred Spirits species, helped disclose a different set of ordinary encounters, that revealed implicit desires and needs of the patients. Resorting to the immersive power of design, through storytelling and prototyping, is often used to construct nearfuture worlds and suspend disbelief about change. In this instance, the staged interactions allowed for the contextualisation of the discussion, within Mistral’s clinic:

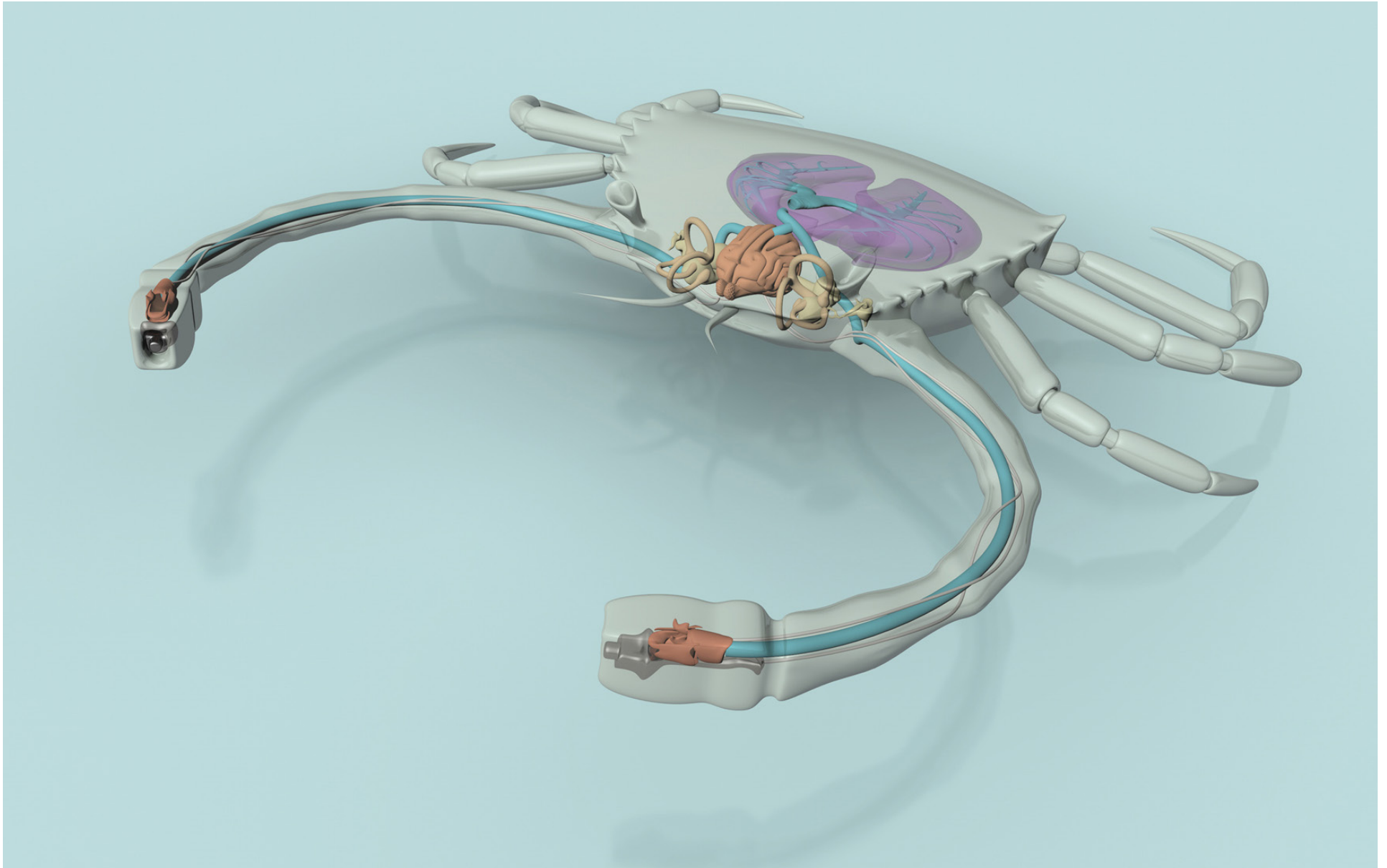
Story Kindred 1: Hertzog

“Spending time in the living room is sometimes difficult; there is too much noise and that is disturbing. Hertzog reacts to sounds. When disturbed with the excess noise, it crawls out of its resting place, emitting different sounds from each extremity. When I pick it up and listen to it, it calms us both. I hear a beating tone, as if both frequencies were mixed in my brain...”



Figure 18. “Sometimes you can’t hear your own mind” (Mistral patient, 2013).

Figure 19. Hertzog. Anatomical illustration by Maartje Kunnen



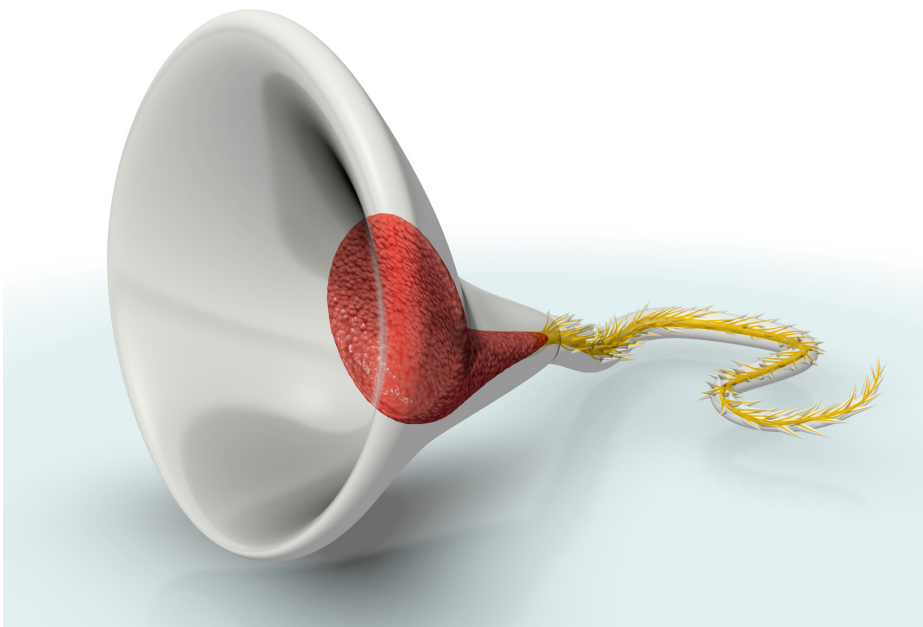


Figure 20. Gaz. Anatomical illustration by Maartje Kunnen



Figure 21. “Smells make you want to talk” (Berend Hofman, *Mistral*, 2013).

Story Kindred 2: Gaz

“There is a small room in which we have our first meeting in Mistral. The clinicians ask to talk about yourself and what you want to achieve here...it causes stress. The room has a window that does not open, so the air feels dense and uncomfortable. Gaz likes to lie there and listen to our conversations. Its tail has nerve endings and it has a very evolved sense of smell. After a while you calm down and you realise that the smell has changed in the room. We start to talk about the smell...”

CRITICAL REFLECTIONS

These narratives support an imaginative space, contextualised in a community of addiction patients in The Hague. As Berend Hofman explained, the design process differed from the trajectory of therapy since “the work of a psychologist is very practical, whereas a design process initially involves much more talking and scoping the field” (Cámara Leret et. al, 2014). The iterative nature of design facilitated an open exploration of Mistral’s environment, building upon the sensory experiences of the patients through speculation, storytelling and fiction. ‘Treating the space’, as opposed to a disembodied treatment of the patients, the research through design process allowed to bring out unconventional relationships linked to sensory experiences of being.



The smell interventions helped explore the role smell can play within experience, moving beyond its pleasant / unpleasant dimension. In smelling, an intermediary space is created between the immediate, physical sensation of the scent, and the emotional recollection of a person, time or place linked to a previous encounter with the odour. Such ‘involuntary memory’ is unpredictable and speculative, yet situated in a present happening. The smell recollections bring forth a ‘matter of fact’, a reliability in the past which creates a familiar, sheltering context. This allows conversations about experiences without a preexisting contract, as the smells become the ‘object’ of the conversation¹. The process metaphorically represents an engagement with uncertainty rooted in the present: a means of experiencing hypothetical scenarios through an imaginative space, triggered by a smell molecule.

The use of smell highlights the performative nature of research through design and its explorative openness, also innate to the design exploration of materials, capabilities and limits. Distanced from ‘problem-solving’, The Molecules That Matter and the Kindred Spirits series can help start up conversations or share stories. Instead of providing a solution to addiction therapy, their value resides in the experiential moment of exchange. In this respect, the outcomes from the immediate and speculative enquiry can be conceived as two complementary ends of an evolutionary spectrum, exploiting fantasy to talk about the less explicit behaviours in the every day, to point towards possible interventions within care.

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My deepest gratitude to all the patients who openly collaborated with their personal experiences, throughout the development of this proposal.

Notes

¹ Further reflections on the ethical implications of the use of smell for memory recall, are presented by Valentijn Visch, differentiating it from a ‘truth serum’ due to the patients prior informed consent, the supervision of the exercises by a therapist, and the constant control of the experience on behalf of the patients. (Cámara Leret et. al, 2014).

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