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Illuminating Bodily Presence in Midwifery Practice

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Abstract

The article highlights the introduction of new coloured illumination technology in healthcare environments. Through sensory ethnographic fieldwork, the article showcases the cohesion and clashes between human bodies, hospital spaces and new sensory technologies, exemplified by a case of delivery rooms in Denmark. By addressing how midwives experience and practice lighting during the process of labour, we show how lighting technologies act as atmospheric elements and affect notions of intimacy and 'being present' in midwifery practice. The analysis points out a nuanced midwifery sensory awareness of how light not only shapes atmospheres in the delivery room, but also how these atmospheres attune the practices and gestures of human bodies. Through Hermann Schmitz's notion of 'bodily gripping powers', we thereby argue for a general attentiveness in healthcare design to how technologies and design affect bodily practices and employees' understanding of their profession. While health science has long showed the effects of lighting on the human body, now increasingly employed in healthcare design practices, the article argues for a broader attention to the interstices of technology and practices of professionals and patients in organizing how spaces are felt and bodies attuned.

Keywords: Healthcare Design, Lighting Technology, Colour, Atmosphere, Bodily Presence, Midwifery

Introduction

In Denmark 98 % of all births are carried out at a hospital (Sundhedsdatastyrelsen, 2020). While the home may offer a familiar space and intimacy, the delivery room is designed to facilitate a specific operation and allows for speedy expertise in case of complications. It is both a highly depersonalized and institutionalized space filled with medical instruments and modern technologies, and simultaneously a space where pain, relief, joy or grief for brief moments come to define an emotional space.

Danish Midwife Elisabeth Astrup, emphasises this emotional space, when stating that 'the space exists as long as the delivery lasts, and then it closes again' (2018: 2–4, our translation). During labour an intimate space between bodies is shaped, where the midwife accesses and guides the birthing woman towards the delivery of new life, or the release of a dead fetus. In her research on midwifery in Denmark, midwife Jytte Møller elaborates that it is an intimate space where the midwifery practice is seen as 'a constant exercise of being present' (2002: 4, our translation). To facilitate a so-called 'normal birth' within such an intimate space, midwives generally perform slow movements, physical touches, and speak in a low, calm voice. They carry out friendly informative dialogue with supporting relatives, smoothing out stressful information, praising the work of the birthing mother, and guide contractions. The intimacy is supported by care for the sensuous aspects of a birth, removing blood from bed frames and floors, throwing away plastic bags of vomit to eliminate the stench, and bringing warm blankets and heat pads.

However, simultaneously with this intimate space, midwives are vigilant about the potential harm that may come to mother and baby, keeping track of tests, examinations, temperatures, heart rates, contractions and dilations, etc. They also handle the numerous technologies that

facilitate the delivery, such as extinguishing alarms from IV poles and call systems, covering up tools, and dimming lights. This split attention between exercising intimacy while being aware of procedures and medical cues has been described by midwives as 'being like swans swimming across a lake. On the top, we look all serene and tranquil, but under the water, our little feet are flapping about like mad' (Scamell 2011: 987). Through this split attention, it is apparent that midwives are also meticulously attentive about the way the space feels; seeking to shift the atmosphere from stressful, tense, and agonizing screams, to calmness, intimacy and relief, with various degrees of success.

While these practices are generally recognized as attempts to support and enrich the birth, aesthetic awareness to delivery rooms, and healthcare environments in general, has increased during the last 10 years (Frandsen et al., 2011; Heslet and Dirckinck-Holmfeld, 2008). In particular, the integration of sensory technologies of coloured illuminations, soothing sounds and vivid moving images has entered conventional delivery rooms all over the world, from China and Australia to Denmark (Hauck et al., 2008; Wavecare, 2018). Light and sound technologies, it is argued, can mitigate stress by their therapeutic influence (LaCava, 2014). In Denmark alone, four maternity wards have recently installed a so-called Sensory Delivery Room (SDR), making it possible for midwives to set the scene of delivery using multi-coloured light and various soothing sounds. The main objective of this healthcare design is to improve the birth experience for women, their partners and staff based on the knowledge that stress can impede labour and delivery.

This article is about the integration of Sensory Delivery Rooms (SDR) in midwives' practices of shaping intimate spaces in Denmark. We focus on SDRs and midwife practices, since tensions arise between the potentials of such sensory technologies – resting on criteria and

premises of therapeutic effects on the individual body – and their actual use in facilitating what midwives consider 'a good delivery', and by implication, what it means to be a midwife. The technologies have pre-set guiding programs for 'Arrival', 'Relaxation', 'Breathing' and 'Welcome', with the aim of providing a calm and comforting birthing process. But for the midwives, the actual orchestration of the delivery room rests on additional parameters including people's bodily positions and interactions, evaluating emotional states, and the sensory norms of staff and visitors. Starting from the notion of midwifery practice as 'a constant exercise of being present', we show how these practices among midwives in a particular hospital in Denmark, are anchored in social worlds that unfold between mother, partner, midwife, and the delivery space atmosphere, as well as between midwives and other staff. That is, while acknowledging the process of birth as a social reunion where the birthing mothers and their partner(s) hold crucial roles in shaping the atmosphere, we focus on how the use of illuminations affect the professionals' 'exercise of being present'. Moreover, while recognising that sound is also relevant and the difficulties in separating light and sound in atmospheric descriptions, this article narrows in on how the new healthcare design of coloured illuminations is applied and experienced in midwifery practices, in order to dig deeper into their atmospheric affects.

Atmospheres have in recent decades emerged as a powerful lens to understand human perception and occupation of space (Anderson, 2009; Böhme, 2013a; Griffero, 2014). An increasing number of studies have been devoted to explore how these philosophical insights take a bearing on, or are challenged by, the complexities of social life (Bille, 2019; Edensor and Sumartojo, 2015; Schroer and Schmitt, 2017; Sumartojo and Pink, 2019). Particularly in the recent works of phenomenologist Gernot Böhme the term has gained prominence, where he notes that they are 'characteristic manifestations of the co-presence of subject and object'

(1998: 112). They are defined by being the emotional tinging of spaces whereby they become perceptible in a bodily-sensuous way (Böhme, 2013b: 1–2). In this way spaces affectively do something to the people present in them through the atmosphere, which the sentient human body in return also influences. Thus, they are never fixed, but instead continuously shaped and constituted by interrelation between people's activities, the technologies at hand, and spatial setting. Atmospheres are in this way involved wherever something is being staged, wherever design is a factor, Böhme argues, thus including delivery rooms (ibid.).

While the delivery rooms can be analysed in line with this approach of "staging" or "designing", this article pushes the perspective beyond how midwives continuously reorganise atmospheres through lighting practices, to also focus on how that atmosphere puts a mark on human bodies in the exercise of being present. For this aim we turn to another phenomenologist, Hermann Schmitz, who in large part has inspired Böhme with his first writing in the 1960s (Schmitz, 2009). Schmitz focuses on atmospheres as 'spatially outpoured emotions' which are experienced but cannot be separated from the human felt body (Schmitz et al., 2011: 246). To Schmitz, atmospheres are expressions of relationships that precede the splitting of subjects and objects, and thus, unlike Böhme's view, are unable to be intentionally staged through material means. From this starting point, Schmitz outlines a New Phenomenology which defends a nonmentalistic view of emotions as phenomena in an interpersonal space in conjunction with a theory of the felt body's constitutive involvement in human experience (2016; Schmitz et al., 2011). To Schmitz, a person's felt body (Leib) is understood to be what a person can feel or sense of himself/herself in the sphere of his/her material body (Körper), without falling back on the five senses or on habituated ideas of the body. Schmitz makes a distinction between two types of bodily presence - one 'primitive' and one 'expanded' (2017: 21-33), exemplified by the former being a contraction e.g. when being shocked, and the latter with an outward expanded attention, when for instance a midwife synchronizes her body with the birthing mother, as we will elaborate. With emphasis on atmospheres and with Schmitz's particular perspective on the felt body this article argues for closer attention to the broader bodily affects and potentials of technologies of coloured illuminations as design elements in delivery rooms and healthcare environments. The lighting technology not only shapes visible spaces but also emotions, bodies and the notion of being a professional midwife.

First, we outline the history of light and colour in healthcare and SDRs. Then we turn to a brief outline of methods and an analysis where we explore four different aspects of midwifery lighting practices in the delivery room. Finally, we discuss how atmosphere and presence come into being and matter, followed by a conclusion.

Healthcare Environment and Illumination

The study of healing properties of light and colours have long roots in both philosophical and occult ideas that human health depends on the inner balance of humours (fluids) flowing in the human body (Arikha, 2007: 1–14). Today, this belief falls within a Naturopathic premise that the body will heal itself when various components are strengthened through the use of nontoxic, natural therapy (Cayleff, 2016: 1). This includes Chromotherapy as the application of certain wavelengths / colours of light for healing (Babbitt, 1878; Pancoast, 1877; Pleasonton, 1877), and Phototherapy, as applying the beneficial effect of chemical radiation of UV light in the treatment of skin disorders (Nielsen and Nielsen, 2001). The British nurse and founder of modern professional nursing, Florence Nightingale (1860), similarly addressed the affective relationship between light, colours and the human body, describing how environmental elements of shape, colour and sunlight seemed to affect the healing of the body, leading to the use of sanatoriums as medical treatment from the 1800s onwards (Sadar, 2014).

It was however only much later that healing architecture became a more widespread scientific topic. Particularly since Roger Ulrich (1984) showed a correlation between shorter duration of hospital stay and patients having a view to a natural setting compared to a brick wall, research on healing architecture has flourished and had impact on designs of healthcare environments. Since then, research has for instance shown that daylight under certain circumstances can reduce pain and treat depression (Frandsen et al., 2011: 23–29) and that colours and visual art can support patient satisfaction and well-being during hospitalization (Tofle et al., 2004; Nielsen et al., 2017). In the development of healing architecture, the concept of 'controlled multi-sensory environments', also called 'snoezelen rooms', was established in the Netherlands in the 1970s. The term covers a room designed to stimulate human senses via stimuli in the physical environment, such as light, colour, music, aromas, different textures and décor. The snoezelen rooms have especially been applied for people with mild or severe disabilities, providing muscle relaxation, comfort and relaxation, causing endorphins release and relieving people's pain-coping capacities (Manesh et al., 2015: 1–2).

Beyond the impact of healthcare environments on the individual body, several studies focus on the social impact of the physical environment. For instance, Edvardsson et al. (2003) have studied ward atmospheres through analysing a long narrative of one person describing and contrasting two ward experiences, one where she lost her mother through death, and the other where she became a mother through birthing. From this, Edvardsson et al. argue how atmosphere has social dimensions that literally surround us in the same way the atmosphere studied by natural scientists does, while pointing out a need to broaden the focus of inquiry in research on caring to include the entire social context where care is provided. Sumartojo et al. have similarly studied atmospheres of care in a psychiatric inpatient unit (2020) arguing for how atmospheres are shaped 'on the move'. By understanding how people draw on their previous experience to understand the present, and imagine what they will encounter in the near future, they lay out how staff adjust their routines to support atmospheres of calm and safety, e.g. by positioning trolleys, choosing food and timing meals in certain ways. Additionally, Martin et al. (2019) have explored the way building materials are used and experienced by staff members, volunteers and visitors. Inspired by Böhme (2013a: 27), they conceptualise the materials, colours, light and form of the building as "generators of architectural atmosphere" and argue that the healthcare environments are emotionally charged buildings that shape the ways in which care is staged, practiced and experienced. Moreover, they point out how care often is unfolded within embodied moments, gestures and attributes to the atmospheric qualities of particular places rather than articulated verbally (Martin et al., 2019: 2). In another analysis, Martin further argues for how buildings are rather emergent in character than static, by analysing the kitchen table as integral to the choreography of care, choreographing movements and fostering a feeling of homeliness, fundamentally opening up to re-imagine the care-as-dwelling (Martin, 2017).

These developments and insights have inspired the creation of SDRs as a more protective and relaxing environment than offered in conventional delivery rooms (LaCava, 2014; Wavecare, 2018). Current studies on birth environments generally address multifactorial influences or combine several interventions at the same time, in relation to women's birth experience, obstetric birth outcome and patient safety issues (Hauck et al., 2008; Manesh et al., 2015; Foureur et al., 2010). These studies show how sensory elements in the delivery room can offer a labouring woman distraction, relaxation, comfort, environmental control, and safety in a home-like atmosphere (Hauck et al., 2008; Jensen, 2014) and support new spatialities and socialities of domesticity (Fannin, 2003). Others point out a decrease in mother's pain intensity,

duration of labour, requests for epidural analgesia, and incidence of episiotomy (cut in the perineum) due to the presence of sensory elements in the delivery room (Manesh et al., 2015; Duncan, 2011; Wrønding et al., 2019).

Yet, limited research has been done on the relationship between midwives and birth environment, and it generally relates to organizational matters. Research has explored the relationship between birth unit design and safe, satisfying birth, from a focus on communication (Foureur et al., 2010), surveillance (Stenglin and Foureur, 2013), birth territory (Fahy and Parratt, 2006), and midwife-led care (McCourt et al., 2016). Two recent studies have more centrally explored the relation between midwifery practice and birth environment (Hammond et al., 2013; Hammond et al., 2014). First study theoretically explores the relationship among birth environment, neurobiology and midwifery practices, arguing that birth environment may play a direct role in the provision of quality midwifery care by triggering oxytocin release (2013). Second study empirically identifies how design of hospital birth rooms shape midwifery practice by generating cognitive and emotional responses, which influence the activities and behaviour of individual midwives (2014).

In sum then, after more than 200 years of studies into the healing properties of coloured illuminations and the atmospheric potentials of building materials to affect care, much research is available on some of its potential effects on physiology, communication, birth outcomes, socialities and experiences. Remaining is however what effects the therapeutic coloured illuminations have on the practices and experiences of intimacy among professional health staff, in this case midwives in a delivery room.

Lighting for Bodily Presence

As stated, most births are delivered in hospitals, where the average amount of vaginal births is around 78 % compared to 22 % caesarean sections (Sundhedsdatastyrelsen, 2020). Rigshospitalet is the central and second largest hospital in Copenhagen, Denmark. The Delivery Unit, is staffed by 130 permanent midwives (35 doctors, 15 secretaries and 16 social and healthcare assistants), supporting prenatal visits, inductions and around 5,500 deliveries per year in the nine delivery rooms of the hospital.

The first author carried out four months' fieldwork in the summer 2018 at the maternity ward of the hospital. It was made possible through close collaboration with the Deputy Chief Midwife and the Clinical Developer of the obstetric clinic and complied with all formal and ethical guidelines for Danish procedures, including a formal collaboration contract with the hospital. Fieldwork consisted of tailing a midwife during her day, evening or night shift (8h+), however mainly evening- and nights, due to the focus on light practices. This also means that reflections regarding daylight hours and views have been left out, since data was collected primarily during dark hours. However, it should be mentioned that during daytime the light was still switched on, and thus lighting practices is not simply a question of daytime versus nighttime. Entering the delivery room, the midwife would perform a short gatekeeping introduction of the first author to the birthing mother and her partner(s), who then would explain her role as a "helping hand" and researcher studying midwifery practices. This followed a granting of access to 62 out of 63 possible birth processes, of which 27 were in the SDR. Aside from extensive informal interviews with the midwives and participant observation (e.g. aiding in holding legs, and drying sweat from mothers' skin), 30 semi-structured interviews with midwives were conducted, along with photos and video footage for documentation and around 500 mappings of light settings and midwifery practices, bodily positions and flows of the delivery room. The study thus also centrally engages in a sensory ethnography (Pink, 2015), where both the cultural judgment of sensory input are explored, as well as how midwife practices of facilitating birth, is understood through a sensory lens. All midwives have been anonymised.

Entering the delivery rooms of Rigshospitalet one is met by a space equipped with cabinets of cloths and needles, sodium chloride (saltwater)- and vomit bags and more. The cabinets are divided by a bench which serves as a workplace for midwives. On the floor, sechers table (resuscitation table for the baby) and a chair (for the partner) is centred around a bed rest (for the birthing mother), all framed by white walls with few decorations such as a poster showing birthing positions. Looking up in the delivery rooms, one finds a centred ceiling mounted operation lamp, highlighting the space as a working area. All delivery rooms share the same view to a green park. Smaller downward facing spots are installed under cabinets and some delivery rooms have additional architect lamps or upward facing lamps installed on the backwall. In the eight conventional delivery rooms, one finds 30x60 inches florescent ceiling lamps all controlled by an on/off switch near the entrance. In the SDR installed in 2017, the main light sources are six 20 inches in diameter LED spots all controlled by a tablet, viewing four pre-set guiding programs for 'Arrival', 'Relaxation', 'Breathing' and 'Welcome', making it possible to change both hue and intensity of the lighting; 'Breathing' imbuing a cold bluish light and the other more warm reddish/orangy light.

The midwives at Rigshospitalet were the main controllers of the lighting in the delivery rooms, and as illustrated below, there is a discrepancy between the preconceived ideas of the lighting programs, and the midwives' application and understanding of lighting in relation to orchestrating intimacy. Below, we explore four different aspects of midwifery lighting practices in both conventional delivery rooms and SDRs to attune atmospheres: 1) The Potency of Brightness and Dimness, 2) Changing the Energies, 3) Handling Dynamics and Dissonances, and 4) Attuning Bodily States of Being. These themes express how the agency of the midwifes is continuously engaging the feel of the space to choreograph the bodies, actions and gestures of people in the delivery room.

The Potency of Brightness and Dimness

'Just try and feel it, it's not very enjoyable, this light we are sitting in right now... I just don't like being in it. I would never choose this light if I were to feel safe or relaxed or work', one midwife commented in a conventional delivery room. Midwives also talked about an assumed unpleasantness of having to lie down to rest and look directly into a spotlight. For them, the operating lamp and the ceiling lights were generally experienced as cold and harsh. Instead, the common preference amongst midwives was dimmed, warm lights. Dimmed lighting 'creates a direct ambience of light and you clearly feel that the parents become more relaxed and the babies open their eyes more, when the light gets turned off,' as another midwife stated.

The midwives expressed their concern for couples, who might not feel safe being in a hospital where brighter light could make them more aware of their institutional location of 'white, muddy grey, black and beige' materials. According to the midwifes, their task, among many others, was also to shape a space in which the couple felt comfortable, rather than alienated and institutionalised. Yet it was also their own sense of being in the space that was at stake. As some midwives stated how 'I am not as relaxed if there is full flare on the electricity in there', and that the bright lights generally felt 'annoying', 'overbearing' or 'noisy' in terms of disturbing their peace of mind. Thus, while lighting may seem like a minor problem in a birthing situation, it mattered to the midwifes. Such subtle attention to lighting was most exemplarily expressed when one midwife stated, 'the worst thing is to take over a delivery room where all

the lights are on.' A common lighting practice among the midwives was thus to turn off or dim lights in conventional delivery rooms, e.g. after cleaning the space or a visit by a doctor. Instead of applying the spots and ceiling lights, they favoured turning on small lights located under the cabinets and creating spaces of focal glow by pointing the operation and architect lamp to the wall.

Images 1 and 2: A conventional delivery room before and after a midwifery lighting intervention.



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One of the midwifes, Lisa, had been a midwife for 32 years and had worked at the ward the last nine. During an informal talk she pointed out how the lighting in the delivery room was particularly important to her. Like many other midwives, Lisa stated how she liked turning on the 'softer' and more 'dimmed' lighting, since the best lighting came from the architect lamp because it has 'a bit more warmth in it.' As another midwife Alice stated:

I'm trying to get [the light] as dimmed as possible, to create a sort of cave-like atmosphere. So that there isn't this spotlight shining down, unless we need it in an emergency situation or need to look properly at the child. Then we turn it up properly. But otherwise, I try to turn off the top lights as much as possible and only have the lights above the cabinets on. Some of the rooms have a small architect lamp you can just switch on instead. Those I like.

As a consequence of favouring warm lights, Lisa had experienced searching the ward to find an architect lamp, just to avoid having to turn on the ceiling lights in a conventional delivery room. In similar veins, midwives pointed out the joy when couples brought a braided IKEA lamp or a light chain to the delivery room. For them, it all came down to trying to create a 'home–like, cosy feeling' in the delivery room, where the couple did not feel insecure about 'what is going to happen here?!' when entering.

We thus see a very active practice and awareness of atmospheric qualities of lighting with a preference for dimmed lighting. As such, midwives actively 'stage', to follow Böhme, for a more homely feeling in the delivery room, to support safe and relaxed interaction. While ceiling lighting made the room visible, the practice of adjusting it attuned the space to a social and intimate space, welcoming both visitors and midwife in physical and bodily affective terms.

Changing the Energies

With the introduction of the SDR, midwives were now equipped with additional opportunities to fine-tune the lighting, beyond dimming. For most of them this was a positive add-on to their professional practices, supporting the calmness they sought to orchestrate in conventional delivery rooms. As one midwife stated, 'I always think I'm trying to work with the lighting in delivery rooms. And here it was possible to make it a little better.'

Generally, midwives favoured the reddish tones of lighting in the SDR, which was more or less part of the 'Arrival', 'Relaxation' and 'Welcome' setting that was meant to calm. They described their common experiences of these tones as a 'warm', 'soothing', 'mild', 'quiet', 'calm', 'soft', 'cosy', 'pleasant' and 'homey' feeling. These nuances of light 'called a little more for comfort, sitting together and holding each other.' Others pointed out how you 'lower your shoulders a little and feel welcome' when entering the reddish illumination of the SDR. As Kira, one of the younger and newly educated midwives of the ward, noted, 'I think... the word 'gentle' just comes to my mind. It's such a gentle way to say welcome... where the light is not hard.'

In contrast, blue illumination, which was part of the 'Breathing' setting meant to support flow of breath. Midwives felt 'triggered', 'stressed' or that it would give 'a little quiver before their eyes' when working in the blue light. As Lisa stated:

Well, the blue is very aggressive and very cold in colour, I think. Whereas the reddish, yellow, it's just a snugger colour. It seems more calming. The other one is much more brash, a bit like just having switched on all the ceiling lights in one of the other delivery rooms, right? It becomes a very intrusive, diffuse lighting in which I find it hard to find peace.

Images 3 and 4: The sensory delivery room in the blue and in the red illumination.



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However, occasionally midwives would adjust and apply the different 'energies' of blue and red illuminations to support their work and the process of delivery. One such situation occurred an evening where one midwife was struggling to get the woman into a more active mindset. She turned on the blue light, and after the delivery was over, expressed her decision.

I changed the setting because I thought we just needed a change of energy. And then I changed it again because I thought we needed another energy change. A little more like a cave and down in... Not in pace, because we still had to get the contractions going, but that the contractions would be better stimulated by a calm and cheerful condition. And finally, it was a combo, the last change, that Welcome thing, it was a combination of calm and enclosing... you know that womb-like feeling and a welcoming to the child (...) for me it seems to create safety and cosiness. And intimacy.

The coloured illuminations were applied by midwives to support, activate or frame certain types of bodily sensations, relations, and practices, like focus, intimacy or energy to stand up or breathe. Thus, midwives generally experienced how being in the blue and in the red illumination was not only about the atmosphere, but also had a way of moving the body in certain directions, as well as being a tool to stress certain 'energies' and activities in the space.

Handling Dynamics and Dissonances

Midwives would generally describe how they always 'set the scene' for the activity or focus in the delivery room, regardless of whether or not they were located in a conventional delivery room. However, midwives would sometimes turn off the coloured illuminations of the SDR and switch on the operating lamp or the ceiling lights. This happened if they wanted the birthing woman to be more alert. As one of the more experienced midwives, Eva, described it, 'If I have to apply a vacuum extractor [to pull the baby out of the womb], then it would be "full lights on", because we have to see properly and she must be alert ... you know she must ... she should be woken to be ready.'

But full lights on could also be a way of supporting the communication and focus of an intense situation. As another midwife contemplated:

I think something happens to the mood when we apply this [coloured illumination]. Then we get a nice relaxed mood, but when we have to apply a vacuum extractor, we need more light. And we must be able to speak more clearly to each other, we have a 'closed loop' type of communication. And especially if we have a woman bleeding after a birth, then we have to say that now we just have to focus somewhere else.

One mother described her experience of this lighting practice while the midwife stitched up her perineum after delivery: 'It is funny how your body suddenly becomes another's working space', and thereby addressing the objectifying effect of the bright illumination from the operation lamp.



Images 5 and 6: Lighting in the operating room and SDR during delivery.

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Furthermore, in relation to the intensity and gravity of the situation, the coloured illuminations of the SDR would occasionally be described as 'annoying', 'frustrating', 'intrusive', 'too slow', 'contrasting', and 'unsuitable'. As Eva stated, 'It may well be a little disturbing and suddenly become an annoyance, with lights flashing... in that way I think it is a clash.' The midwives thus addressed how a delivery process is not always smooth and soothing but also comes down to matters of life and death, and how the illuminations could counteract and clash in such situations. In this case, lighting would be part of shifting the relationship between midwife and birthing mother from intimacy and connectedness to an objectified 'work space'.

Attuning Bodily States of Being

For some midwives, the dynamics of the SDR were closely linked to and described by bodily states of being. For these midwives, the lights of the space were experienced as positively relaxing and imbuing a greater sense of calmness and intimacy. Lisa expressed how, on entering a room you have not been in or seen before, 'many people pull up their shoulders and think "What is about to happen here? What is going on here? [...]". But with pink lighting and ocean waves, you can hardly have your shoulders up anywhere. At least, then you really have to want it a lot.' The lighting thus had the quite literal effect of guiding people's bodily postures and gestures.



Images 7 and 8: Bodily states of being in the SDR.

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Midwives would describe how they got a sensation of shielding themselves and the couple from the outside world while in the SDR. As the midwife Annie put it at the end of one of her night shifts, 'Something else just happens... you get wrapped in your own bell jar in some way and forget about time and space... I think a different ease sets in here.' Relatedly, the first author would observe how doctors and assistants entering the SDR, during the first minute, would acclimatize their voices and drop from a relatively high and fast level to a lower and slower one. One midwife described how she might be moving a bit differently in the SDR: M1: I actually think that I am a bit more careful in there... I think that I am a little slower...

M2: You are calmer...

M1: Yes, I actually think that I move a bit differently in there. Like I think that I would like to support some sort of a sphere of intimacy. That is, anyway, my experience of it.

In that sense, there was a very keen awareness of how light not only shaped the atmosphere in the delivery room, but also how that atmosphere attunes the body – raising or lowering shoulders and moving bodies faster or slower. While not all midwives agreed – some stating that the light was somnolent, and one for whom it induced headaches and nausea – the general lighting practice is as illustrated in the four different aspects above.

Light as Bodily Gripping Powers

Whenever midwives 'set the scene' for a more homely feeling in the delivery room, to slow down movements and feel the energy change of being in blue or red illumination, they generally shared an awareness of how light shaped an atmosphere that attuned their body and imbued certain movements. One midwife summarized her overall experience of the SDR briefly when simply noting that 'Some sort of dynamic is happening in there.' Yet turning to our initial recognition of midwifery practice relying on 'the exercise of being present' the question is what kind of dynamic, and how does it relate to the central issue of illumination in midwifery practice?

Böhme points out that the spaces generated by light and sound are no longer something perceived at a distance, but something within which one is enclosed (2013: 5). He points out how atmospheres shape ways of perceiving, and by their deliberate staging, attention must be

given to how affective aspects of the human environment are orchestrated (Anderson, 2009; Böhme, 2017b; Schroer and Schmitt, 2017; Sumartojo and Pink, 2019). Böhme brings attention to the ways atmospheres are staged, and allows us to see how healthcare practices orchestrate the atmosphere through lighting. This atmospheric orchestration is shown in the case of surgery (Stenslund, 2015), and an emergent capacity to manipulate the affects, spaces and events of a body's 'becoming well' in recovery (Duff, 2016). Lit spaces affect the sensory bodies of midwives and, as Böhme argues, 'atmospheres imbue everything, they tinge the whole of the world or a view, they bathe everything in a certain light, unify a diversity of impressions in a single emotive state' (2013: 2).

Several studies have taken up Böhme's point that 'illuminations are perceived as atmospheres' (2017: 203), and showed the emotional, cultural and social implications of lighting in shaping bodily sensations, everyday life and spaces (Bille, 2019; Edensor, 2015; Nielsen et. al., 2018; Pink and Mackley, 2016). Through Böhme we can thus grasp the idea of light as atmospheres, and its deliberate staging by both the designers behind the SDR and the practices of the midwives, but how does it bring us closer to understanding the bodily sensations of exercising presence? Here we turn to Schmitz.

To Schmitz, the concept of atmosphere is not only a concept of 'emotions as spatially outpoured', but also a concept of bodily gripping powers (2017: 93–100). He warns that this does not mean a reification of emotions, but rather sees them as 'half-things' that can be both individually experienced and collectively felt presence (2009: 84–86). At times this presence is one defined by confirming a physical, spatial presence of a person or phenomenon as *being-there*, at other times, it is the intimacy of *being-near* shaped through gestures, sensory experiences and atmospheres. The atmospheric potential of light is then not merely a spatially

emitted visual phenomenon surrounding us and affecting us bodily, but also has the ability to grip bodies in the space by imbuing certain bodily states of being.

In this perspective, the illuminations in the delivery rooms can be understood to bodily grip the midwives to a greater or more subtle extent, as when they move slowly and turn shoulders and voices down. Additionally, the midwives are not only passively sensing bodies of the SDR illuminations. Inspired by their embodied knowledge of its sensational affects and powers, midwives 'set the scene' for delivery in general by dimmed and warm, cosy reddish lighting, atmospherically gripping bodies to instil calmness and intimacy, and in contrast, by applying the brighter and colder, crisp, bluish lighting, to support a more active focused and alert bodily state of being, where 'your body suddenly becomes another's working space'.

These changes of energy that the midwives address and work around follows Schmitz's distinction between a polar tension of two types of bodily presence – one 'primitive' and one 'expanded' (2017: 21–33). Our primitive state of presence is defined by a bodily contraction; a tension from which we are pulled into a single spot in the room. For instance, when bodies scrunch or jump at the sound of an alarm going off in the delivery room or the birthing mother suddently screams. In contrast, in our expanded state of bodily presence, we are spread into open space, where reality becomes a blurred undifferentiated background, and the surface of our felt body extends beyond the skin. This is observed when the midwife's attention is directed towards the birthing mother, even with her back facing her or in the last minutes of delivery, where she synchronizes her bodily flow and rhythm with the body of the birthing mother, jointly breathing in and out, saying: 'and now we are going to push!'. Following Schmitz, we are bodily present, but living in variations or expansions of a contracted presence, where the felt body is constantly about to expand or contract or finding itself in a balance between the two

opposing trends. In this sense, Schmitz not only helps us distinguish between presence as a spatial term – of someone or something 'being there' physically – and as an existential and intimate relation of someone or something 'being near', but also to better integrate the body.

Schmitz furthermore introduces the concept of 'movement suggestions', which according to him gives appearances their expressive quality (2017: 35–58; 2016: 4). This quality can show in manners of posture, movement, gesture, gaze, voice, etc. Schmitz describes a bodily communication with the world:

We have a sense of enlargement to all sides when we, by an exhilarating breath, enter into ... an unexpectedly beautiful hall. Unconditionally, we expand our chest and make ourselves grow as if we wanted to adapt to the impressive environment and prove ourselves worthy of it. As we expand and stretch in this way, we get a vital experience of conquering the space and expanding our power. (Schmitz in Wolf, 2017: 57, our translation)

This concept of movement suggestions covers the expressive bodily dynamics of how sensations move the felt body in certain directions through attunement to the atmospheres.

The slow movements, deep breaths, low voices and touch carried out in the delivery room exemplifies an expanded bodily presence developing through movement suggestions. When midwives state how they feel more 'safe and relaxed' working in dimmed lighting, or that reddish nuances call 'for comfort and wanting to sit together', it reflect these movement suggestions. When midwives state how they feel more focused, communicate clearly or 'awaken the birthing mother to be ready', it is a primitive bodily presence played out by the movement suggestions of staic or moving material bodies in a physical space with a clear agenda. The distancing sense of becoming 'another's working space' that the birthing mother expressed under the sharp cold light illustrates this. Hence, the postures, movements, gesticulations, gazes and voices of the midwives, expressing the quality of their bodily appearances and presences, are constantly balancing between a contracted, distancing, focused one and an expanded, intimate, calming one. This notion of presence also explains why some midwives experienced the soothing illuminations of the SDR as 'disturbing', 'contrasting' or 'clashing', when the intensity and gravity of the situation was increased, as the illuminations in this sense could be seen as counteracting their balance of expanding and contracting presence.

The different illuminations of the delivery room thus attune the midwifery 'exercise of being present' by imbuing different bodily states, which sometimes is facilitated by the lighting technologies, but also at times works against the intentions and logics of said technologies. Accordingly, the lighting practices of midwives – favouring warmer hues and dimmed lighting – can be seen as constant balancing acts favouring modes of expanded bodily presence and softening the contracted ones, with the aim of imbuing an atmosphere and bodily state of intimacy and togetherness in the delivery room, compared to the premises of the SDR to stimulate therapeutic effects of comfort and relaxation. As Lisa eloquently puts it, 'It is just continually in our subconsciousness, to oversee the calm and the atmosphere needed in a delivery room.'

Conclusion

Introducing new technologies such as coloured illuminations into healthcare environments has implications and potentials. Firstly, it is clear that such technologies are reframed from their health science logic, into new lifeworlds where fundamental issues such as perception of what one's profession is all about, and what the relationship between professional and patient should be like, takes centre stage. Exemplified by a case of delivery rooms in Denmark, we have addressed how midwives experience and apply lighting during the process of labour. Our analysis showed how midwives generally shared a sensory awareness of how light not only shapes atmospheres in the delivery room, but also how these atmospheres attune practices and gestures of human bodies, by their 'bodily gripping powers'.

The atmospheric framing of midwifery lighting practices moves beyond studies on sensory elements and their effects on medical outcomes and patient safety issues (Hauck et al., 2008; Manesh et al., 2015; Foureur et al., 2010), and analyses of new spatialities and socialities building elements bring (Fannin, 2003; Martin, 2017). Rather we wish to align with the ways in which atmospheres of care are shaped, for instance 'on the move' (Sumartojo et al., 2020), by focusing more on the bodily gripping powers of lighting and atmospheres. Taking the human felt body into account opens up for new sensory possibilities of how to design for and practice atmospheres of care in healthcare environments. This supports a move beyond notions of "measurable healthcare outcomes" and "implementations of design solutions" to centrering the agentive human sensing body in health and healing where healthcare designs are integral to professional identities. While health science has long showed the effects of lighting on the human body, increasingly employed in healthcare design practices, we thus call for a broader attention to the atmospheric interstices of technology and professional practices in organizing how spaces are felt and bodies attuned, to undergird a sense of 'being present'.

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