

## Diseña 20 | Design and Somatic Sensibilities

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### ABSTRACT

**Cultivating somatic sensibilities involves heightening our sensory appreciation as a path to devise meaningful multisensory experiences in interaction design. Immersed in an increasingly digitalized and data-centric world, research projects centering on the sensory, embodied, and material reality of our experience, might start losing momentum. On the other hand, the pandemic has also transferred our labs from the public nature of our workshop room to the intimacy of our homes, bringing unexpected benefits and challenges. The articles included in this issue center on the sensory and material experiences of designers, who work with design methods that foreground somatic modes of inquiry and show how these changes could open a door for new opportunities to emphasize the importance of embodied and somatic practices in design and HCI.**

In design, *reflexivity* alludes to the capacity of conceptualizing through our hands and materials, situating our activity as eminently enactive (Schön, 1987). The concept of *design and somatic sensibilities* we discuss in this issue goes a step beyond, understanding design as a matter of reflective practice. Being *somatically sensible* in the context of interaction design involves heightening the appreciation concerning our sensory experiences as a path towards connecting with other subjectivities. We argue that this capacity for *discernment* helps us understand the rhythms and aesthetics of bodily experiences, including their differences and singularities. As interaction designers, we believe in the importance of engaging with our whole bodies to devise better multisensory experiences that are novel and interactive, while respectful of people's capabilities and dignity.

In his influential *Phenomenology of Perception*, Merleau-Ponty (1962) made a radical claim, stating that we are our bodies and that subjective experiences cannot be separated from our objective reality. Our somatic sensibilities — shaped by subjective experience — make us who we are. Yet, the lived body has traditionally been regarded as a second-order research topic in science (Nicolescu, 2014), although this perception is changing in our field. We have

seen an influx of new publications contributing to the discussion on the validity of first-person research methods in design research (Núñez-Pacheco, 2022; Ståhl et al., 2021), which appears as a manifestation of the incipient maturity of our field. The visionary work of researchers such as Kristina Höök, Tori Robertson, Thecla Schiphorst, Lian Loke, Danielle Wilde, Caroline Hummels, Sarah Fdili Alaoui, Madeline Balaam, Dag Svanæs, and many others —noticeably, most of them women— opened a door for the establishment of new design research agendas in times when speaking about the body was still taboo. The legacy of these researchers has allowed us to stand here, working towards devising new ways of making science that consider the importance of vulnerability and care (Balaam et al., 2019; Helms, 2019; Popova et al., in press).

Methods based on somatic knowledge have primarily been developed outside the academic domain, ranging from dance, performance, and role-playing to other various body-based practices (Loke & Schiphorst, 2018). These have influenced the emergence of a myriad of methods, such as bodystorming (Schleicher et al., 2010), experience prototyping (Buchenau & Suri, 2000), embodied sketching (Márquez Segura et al., 2016), moving and making strange (Loke & Robertson, 2013), focusing applied to design (Núñez-Pacheco & Loke, 2018, in press), and so on. Recently, we have also seen a surge in design projects that acknowledge the importance of the lived body, ranging from women's health (Balaam et al., 2020; Campo Woytuk et al., 2020; Ciolfi Felice et al., 2021), ideation artifacts (Windlin et al., 2019), a somatic approach to data (Alfaras et al., 2020; Tsaknaki et al., 2020), problematizing on the politics of designing with the soma (Höök et al., 2019), or designing for intercorporeality (Turmo Vidal, 2021), among many others.

The recognition of methods and perspectives that center on the body and somatic knowledge is an advantage since: (1) the systematic use of embodied attention and the articulation of experiential qualities can help designers envision more meaningful interactive experiences, promoting empathy towards others (Höök, 2018). (2) Somatic-oriented practices can also help interaction designers towards a more detailed and committed transmission of knowledge for design (Schiphorst, 2011). In this respect, designers would be trained not only to craft objects but also to recognize the nuances of human embodied experience they are designing for (Schiphorst, 2011). (3) Finally, a focus on other senses beyond the visual, which has been predominant in the discipline of interaction design, can scaffold the emergence of discoveries and insights, and might even enable the design of more complex, accessible, and multifaceted experiences involving the whole body and emotions (Lupton & Lipps, 2018).

The discussion of subjective experience and its influence on the design of technologies is more relevant than ever. With the rise of COVID 19, our

bodies have stayed enclosed in their private spaces, affecting every dimension of our lives in ways we could not have predicted before. Screen-based interactions have served us to communicate, giving us the impression that it is still possible to embrace some level of normality. Still, it has also removed an essential part in the communication of our gestural dimension, contributing to the *datafication of the other* (Zweistra, 2019). As academics, we have also witnessed how it has impacted design research and pedagogy, having no other choice but to sacrifice an indispensable part of the experiential dimension of design making. Immersed in an increasingly digitalized and data-centric world, research projects centering on the sensory, embodied, and material reality of our experience might start losing momentum. On the other hand, the pandemic has also transferred our labs from the public nature of our workshop room to the intimacy of our homes, bringing unexpected benefits and challenges. In sum, we believe that these changes could open a door for new opportunities to emphasize the importance of embodied and somatic practices in design and HCI.

All the articles compiled in this issue, in fact, center on the sensory and material experiences of designers who work with design methods that foreground somatic modes of inquiry. The articles highlight different approaches to becoming attentive to how the bodies of the designers participate in such processes and how similar experiences can be evoked in the crossroad between designed artifacts and end-users. More concretely, all the articles highlight aspects of *knowledge generation* through different forms of somatic engagements. Moreover, they do so with a strong focus on the sensory experiences evoked through engagements with diverse materials, which in turn puts a strong focus on somatic sensibilities arising through felt experiences that go *beyond the visual*. Let us take a tour of the papers to surface how this main theme emerges in the contributions.

A rich somatic experience of interacting with a digital product can arise via nuanced and subtle movements of the body and even of the hands, manipulating an application on the phone, as exemplified by Miniotaité, Pakulytè, and Fernaeus. In their article, they analyze the interaction with a robotic vacuum cleaner through a novel remote-control app in terms of physical manipulation, perception, effort, and utility, and through social and emotional engagement to it. The experience of focusing the gaze on the robot while gently tilting the phone was used by the authors to emphasize the role of somatic sensibilities when designing smartphone applications in the context of IoT. By doing so, they highlight new felt experiences for this use context that contribute to a somatically connected experience between the user and the vacuum cleaner, mediated through the interaction with the mobile phone's screen.

Cultivating a transition from first-, to second-person perspectives, as a way of augmenting one's somaesthetic awareness, can produce knowledge

on underexplored aspects in somatic sensibilities such as mediating disturbing somatic experiences of pain. Demir, Nimkulrat, and Kuusk deal with this aspect with the 'Squeaky/Pain' interactive wearable that they designed through soma design methods and through the first author's autobiographical approach. Externalized pain experiences of the first author are translated into 'Squeaky/Pain', which, through sound, tactile, and kinesthetic sensations, exemplifies how inner bodily disturbances can be materialized and experienced anew.

Similarly, J. Mascha Beuthel engages with soma design methods informed by autobiographical reflections for exploring uncomfortable experiences surrounding research professionalism. Using the idea that materials can be 'expressive entities' (Höök et al., 2019), she designed 'The Armor of a Researcher', a wearable artifact that embodies her observed experiences. This wearable aims to trouble such uncomfortable experiences through the somatic sensibilities offered by physical materials. The tactility of the materials empowered the author/designer when making the wearable, by allowing some experiences to be emphasized, mitigated, exaggerated, oppressed, or distorted. Beuthel combines first-person with second-person perspectives, as participants in a user study try The Armor. Wearing the armor can empower wearers to engage with such difficult issues by provoking reflections on the somatic experiences of 'doing research' and 'being a researcher'. Thus, this design can be considered a response to Balaam *et al.*'s (2019) call to address *emotion work* in experience-centered design.

Coming closer to materials and playfully engaging with making one's clothes can be a way of creating new connections and evoking new sensory experiences between maker, wearer, and clothing. Bell, McQuaid, and Alistar introduce 'Alganyl', a DIY bio-textile made from marine algae, and propose *Do-It-Yourself* (DIY), hands-on fabrication techniques for using it as a material in the creation of expressive and sustainable clothing. They exemplify the process of hand-making sustainable, custom clothing, using the designer's felt experiences of working with such a short-lived material. Reflecting on the experience of making and wearing clothes made from Alganyl, they highlight the importance of human-material experiences of both designer and wearer to gain insight into the behavior, feel, and look of Alganyl clothing.

Touching and feeling materials can bring to the fore new sensitivities through forms of creation involving hands and bodies. This is what Copetti Maccagnan and Meyer investigate in their article, reporting on a case of an experimental practice developed within an embroidery collective. Cycles of touch-oriented experimentation, where participants put their world perspectives into play through this craft practice, allowed them to establish different relationships to time and sensitivity. In particular, the authors present and reflect on how the act of slowing down enabled the cultivation of a distinct sensitivity that allows us

to hesitate in the construction of a ‘good common world’, a sensitivity that puts a focus on uncertainties, care, and subjectivities. The intertwining of touch and experimentation in this case provoked design to access a sensible mode of attention, open to affect and be affected by everything that contributes to the idea of being together. This work generates relevant lessons for considering touch and hesitation when engaging in experimental design processes.

In addition to Copetti Maccagnan and Meyer, Núñez-Pacheco also focuses on cultivating sensitivities of inner awareness. She explicitly draws on design education and presents a walkthrough of a workshop activity devoted to teaching Gestalt laws through the use of the senses. Through this approach, certain patterns of responses were observed — including movement, intensity, and dissipation of awareness — and associated with specific Gestalt laws. The walkthrough illustrated how inner experience can be used as a material to articulate the understanding of Gestalt laws, starting as sensory information, crystallized in writing, and later explored through the hands. She envisions this approach as a way of integrating somatic sensibilities into design education, training designers’ self-awareness and their articulations of bodily experience, which would help them to further develop their skills in design critique.

Training designers’ somatic sensibilities is also the focus of Lewis and Stasiulyte’s article, who present an experiential learning workshop to introduce textile design students to somaesthetics. They present the workshop activities which were held online and included a sensitizing exercise, a reflective sense collage, a collaborative sense mapping task, and a final design task, followed by an evaluative discussion based on the students’ feedback and the authors’ reflections. Introducing textile design students to multisensory material explorations can invite them to pay attention to somatic sensibilities and challenge them to think critically about their engagement to textile materials and designs. Ultimately, such approaches to training design students’ somatic sensibilities can increase their sensory competencies and enrich the exploration of sensory-material expressions in textile design education.

Despite the limitations to co-located design research due to the COVID-19 pandemic, a set of projects in this issue (e.g., Copetti Maccagnan and Meyer; Lewis and Stasiulyte; Beuthel; Demir, Nimkulrat, and Kuusk) reclaim the importance of tangibility and the material realm. Moreover, a common thread along some of these works (e.g., Copetti Maccagnan and Meyer; Beuthel) is the use of feminist theories and approaches as a motivation or epistemological background. For example, Copetti Maccagnan and Meyer find creative, low-resource ways of centering the body and the senses in remote settings, in order to foreground the dimensions of *touch* in design experimentation, inspired by Haraway (1995) and Puig de la Bellacasa (2017), among others.

Connecting the threads of the themes this issue has touched upon, Núñez-Pacheco engages in a conversation with Kristina Höök, titled ‘Soma Design: On Articulation, Materiality, Politics, and the Body’. In this interview, Höök brings up how technologies and bodies are shaped dialogically and how the soma design project assumes the political premise of *living a good life* as a baseline to inform technology design. Navigating through various topics, the interview revolves around the slowness of the soma design process — in contrast with more solutionist-driven approaches —, the tensions of *designing* versus *undesigning* and the importance of articulating experience through various mediums, materials, and language — the latter under certain preconditions. Finally, Höök openly discusses the limits of the soma design program, opening up the door for its expansion through new technology exemplars and projects. **D**

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