

INTRODUCTION TO THE AUTHOR

Gretchen Gscheidle is the Design Director at Herman Miller. With a Master of Science degree in Product Design and Development from Northwestern University and a Bachelor of Fine Arts degree in Industrial Design from the University of Illinois at Urbana-Champaign and leading the corporate research function from 2010–2018, Gscheidle’s expertise ranges from product design and workplace applications to qualitative and quantitative research methods. As this chapter demonstrates, Gscheidle is also a bit of a historian: she pulls from her deep and varied experiences at the company, where she has worked since 1993, to convey how the company has

continually pioneered and led a sustainable, person-centered approach to office furniture design since its inception. She has a laser-sharp mind with respect to what will work for people. She’s a designer and R&D leader, and she cares about people’s needs and how those can be translated into the design of the workplace. She led the team that researched Living Office, which was a huge effort at Herman Miller and has been very successful. This chapter highlights how Herman Miller’s corporate philosophy and design and research methodologies combine to support health, well-being, and productivity—in short, the prosperity of people and place.



Building for Well-Being and Productivity: What Choices?

Gretchen Gscheidle

Let me tell you a little bit about where we're going to journey over the course of this chapter. First, I'm going to give an introduction to Herman Miller for those of you who may not know our organization quite as well as I do, after 25 years with the company. I will then discuss well-being from both the physical perspective and the social/cognitive/emotional perspectives. I will also address productivity in the form of surrogates and self-reports. Finally, I'll offer insight into the choices that we as manufacturers of hard goods for work environments make along the way of the R&D effort—and the choices others make in the day-to-day management of not only the spaces but also the people therein.

The History of Herman Miller

At Herman Miller, we describe ourselves as a research-based, problem-solving organization. We've been around since 1905, headquartered in Zeeland, Michigan, about ten miles inland from the eastern shore of Lake Michigan. In our earliest days, we were nothing like we are today. Herman Miller was a manufacturer of very ornate residential furniture that was indistinguishable from anything else on the

Figure 2.1 Herman Miller logo (courtesy of Herman Miller).



market. That's the way we were for a number of years, until the Great Depression rolled around. Today, our mission is creating inspiring designs to help people do great things (see figure 2.1). Allow me to share a case study to illustrate.

There is a researcher who used one of our task chairs in his office at Harvard University. This researcher's professor moved to the University of Iowa—in the middle of a cornfield—and wanted him to come along. Giving up Cambridge for Iowa was quite a switch, but the agreement was that if the researcher could get one of our chairs in his new office in Iowa, he would move. He is in the field of optometric research and is helping individuals like our CEO's son, who is in his early twenties and losing his eyesight. The comfort that this researcher derives from being able to focus on his work and not being distracted by the pain of sitting in an uncomfortable chair aids him, we believe, in solving issues such as blindness.

Our company's history is filled with stories such as this that, seen together, illustrate our continuing emphasis on using design—whether it be individual pieces of hard goods or the environments that they create together—to support the well-being of people. For today's conversation, we'll dive a little bit further into the three pillars associated with Herman Miller—research, ergonomics, and environment—from a true sustainability perspective.

To illustrate that these issues aren't at all new for Herman Miller—that we're not jumping on the bandwagon, so to speak—we have to dive into the corporate archives. The first milestone along the way takes us back to the days of the Great Depression or a little bit before, when we first engaged with external design consultants. Designer Gilbert Rohde was hired by Herman Miller founder DJ Dupree very early on to be our first creative director, and Rohde was the first to call

out the notion of designing for the people. In 1953, DJ announced that we would be good stewards of the environment. That remains true today in terms of zero waste, our energy center at our corporate headquarters in Zeeland, the materiality choices that we make along the way in our products, and the green spaces at our facilities. I remember having a conversation last year with someone focused in the world of sustainability who didn't know the Herman Miller story per se. He spoke proudly, and rightfully so, about other organizations that have had ergonomic policies for a few decades. I mentioned, "Well, we've had this statement

SUSTAINABLE WORKPLACES

This idea of sustainability resonates with our work at the Interdisciplinary Center for Healthy Workplaces, though we advocate a broader view than the idea of environmental stewardship commonly associated with the term. To us, a sustainable practice, workplace, or organizational culture is one that actively invests in the long-term capabilities of workers by creating and maintaining supports for employee health, well-being, and, by extension, productivity. In this way, we define sustainability in the context of office design as something greater than the sum of nontoxic materials, renewable resources, and net-zero energy expenditures. In addition to sustaining the natural environment, sustainable workplaces also sustain employee health over the long term. This vision of sustainability that focuses on people and

not materials is, by design, the antithesis of toxic workplaces characterized by long hours, high pressure, and unpredictability that place employees at risk of high stress, burnout, and—according to Stanford business professor Jeffrey Pfeffer—even premature death (Pfeffer, 2018). Though she doesn't explicitly articulate it as such in this chapter, the term "prosperity" that Gretchen Gscheidle offers to describe how Herman Miller approaches—and measures—productivity from a human-centered perspective is one approach we might consider in order to achieve sustainable workplaces. Indeed, a workplace that drives prosperity is one that allows employees to prosper in mind, body, and spirit and thus contribute fully to their work and the organization as a whole.



Figure 2.2 The Action Office (courtesy of Herman Miller).

and practice since 1953,” and it blew him away. So our sustainability perspective is something to be proud of.

Jumping ahead to the 1960s, the gentleman in figure 2.2 is Robert Propst, who served as our first director of research. He held the same role in the organization that I hold today, and he left some pretty big shoes to fill. His work looked at the office specifically. When Propst was first hired at Herman Miller after being a professor in Boulder, his task was to take us out of the furniture business and to look at other opportunities for differentiation. The first task that he officially had in this role was to pick out furniture for his own office from our catalog. When he looked at that catalog, he said, “There’s nothing here that will work for me.” He had a very bad back and would often go through traction treatments and therefore needed to stand, and there was nothing in our portfolio that would enable him to do so. Therefore, it was very selfishly that we actually dove a little bit deeper into ergonomics.



Figure 2.3 The Action Office (courtesy of Herman Miller).

In figure 2.2, we see Bob Propst sitting in his very spacious office in the mid-1960s. In addition to sitting, there are opportunities in this office for different macropostures. He's at a standing desk that has three different surface heights and together, along with the storage that is above all three of those work surfaces, he can take advantage of verticality. This was the first manifestation of what we call an "action office." These particular individual pieces in a small portfolio were not around very long. But the name stuck, and the term action office came from the idea that one should be up and about, not only within the individual workspace or workstation but in the broader work environment.

The next manifestation is illustrated in figure 2.3, a vibrant photo from the mid-1960s, depicting what we know these days as an **office cubicle** or the **workstation system**. We recognized shortly that our seating portfolio did not have anything in the way of seating for workstation systems that builds off the notion of moving around. Bill Stumph, hired by Robert Propst a

ERGONOMICS AND DESIGN

What exactly is the role of ergonomics in architecture and design? Let's start first with the definition of Ergonomics/Human Factors (HFE), according to the International Ergonomics Association: “Ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance” (International Ergonomics Association, 2018). We want to direct your attention specifically to the part where it says “interactions among humans and other elements of a system.” Architecture and design are indeed elements of a worker’s system—they make the physical environment in which a worker spends their day completing tasks. And so HFE is an

important aspect of decision-making for architects and designers at all levels of involvement in creating workspaces. HFE is more than the specifics of designing a workstation to prevent musculoskeletal injury; it includes communications, crew resource management, design of working times, teamwork, participatory work design, community ergonomics, computer-supported cooperative work, new work paradigms, virtual organizations, telework, and quality management (Karwowski, 2012).

Let's take the chair as an example of how we can apply a broader view of HFE to design. In The Chair: Rethinking Body, Design, and Culture, architecture professor and sociologist Galen Cranz (whose chapter appears later in this volume) expands upon this idea, noting the need to complement an ergonomic approach

with a broader, more integrated perspective. Observing that traditional ergonomic interventions are too often obscure or atomize the human body and thus fall short of a truly holistic, human-centered practice, Cranz advocates instead for what she calls a mind-body perspective, informed by the somatic disciplines (Cranz, 2000). This mind-body approach takes into account not only the people and objects familiar to ergonomists but also a person's subjective experience and shared cultural beliefs, both of which complicate how we think about the relationship between people and objects such as chairs or, more generally, workers and workplaces. For example, efforts to approximate the perfect positioning of a chair relative to a computer or of a lumbar-support feature relative to a person's back miss a broader question, which is what value

or harm the presence of a chair in a workplace setting offers. In response, a mind-body approach would consider the human body's need for postural variation and physical movement and seek behavioral, organizational, and design solutions—including and beyond chairs—that support this need. This approach also recognizes the cultural complexities involved in introducing physical movement, postural variation, and nontraditional furniture into workplace settings. In short, Cranz recognizes that this mind-body approach is predicated on change in three domains: the education of users and designers, changes in how we design objects and offices, and broader cultural change regarding the value we assign to each (Cranz, 2000).

Figure 2.4 The Ergon chair (courtesy of Herman Miller).



few years prior, aspired to have his own design studio, and Herman Miller helped him establish that with early seed funding in 1974. His first project for the company was to design what became the **first ergonomic chair** in the market—its name was literally Ergon (see figure 2.4). On a personal note, Bill Stumph was one of my direct mentors, and working with him was one of the highlights of my career. He was arguably the most accomplished industrial designer in terms of revenue generated, within our industry and in many others. He holds a lifetime achievement award for product design.

Living Office: Productivity and Well-Being

The first explicit mention of productivity that I can find within the archives dates back to late 1978 in Ann Arbor, where Herman Miller's research corporation was headquartered at the time, when we hosted a small research conference titled "Facility Influ-

Figure 2.5 The action office in application (courtesy of Herman Miller).



ence on Productivity.” In fact, that conference and the conversation that followed led over the next 24 months to the creation of what we now know as the profession of facility management. We see even by looking at this photograph of the Action Office in application that it’s dynamic; there’s a little bit of interest there, in combination with 123 connectors, orientation of the panels, and so forth (see figure 2.5).

I would like to take this moment to refer to someone whose passing I learned about when I was last here on campus a few months ago: Dr. Stephen Kellert from Yale, who studied biophilic design. I had a conversation with him three years ago, in which he made a wonderful comparison to the evolution in zoo design and zoo habitats over the decades, using polar bear habitats as an example. In zoos, polar bears end up doing a “figure eight” routine through the pool, just out of boredom. I think that’s an apt metaphor for floorplans.

Productivity is often conceptualized simply as output; however, it is in fact very difficult to measure productivity in the case of knowledge workers. In our work in Living Office, which has been our framework for workplace strategy and portfolio over the last few years, we take it up a notch. We prefer to

speak in terms of prosperity as the end goal. Prosperity really starts at the top, with that suggestion of passion. There are a number of organizations, including Gallup, that regularly mention issues such as burnout or a lack of engagement in the workforce today.¹ If we can harness people's passions, with people doing work that they enjoy and doing it for organizations that they believe in, there are going to be payoffs. This return is in terms of not only basic financial security but also a higher return on their profession and their work activities, which in turn has payoffs for the organizations themselves. When organizations have individuals who are engaged and feel a higher purpose in their work, that's going to pay off for the organizations because people are going to be that much more engaged in their work. They're going to want to stick around with their organizations longer. Things like the bottom line, the process of hiring, and replacing new employees can be costly. We see a dynamic equilibrium between the individuals and the organizations, aligning those passions and aligning the financial returns. That is our definition of prosperity, and that is the heart of Living Office.

Living Office is one of the largest studies that Herman Miller's team of researchers has ever undertaken. It is a longitudinal study, and it is still very much in process. We were asked a few years ago for proof points or case studies of organizations that have moved from whatever sort of workplace they were in previously to what we would describe as a Living Office. Consistent with the scale of the efforts,

1 Although the topic of burnout has seen a significant increase in interest, especially in the workplace, the term is often misunderstood. Burnout is a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach & Leiter, 2016).