

Textile Technology and Design: From Interior Space to Outer Space

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Foreword by Susan Yelavich

It is 20 degrees Fahrenheit outside today. I am deeply conscious of the layers of fabric that I'm pulling up, tugging on, tucking in, wrapping around my body's thermally deficient architecture—all so I can enjoy a twenty-minute walk from Soho to the Village. In fact, I'm setting out to exchange more textiles for others, returning leggings for tights that will cover (and warm) my feet. Threading my way through knots of down-pillowed tourists, I find myself mulling over the strange relationship we have toward textiles. Culturally, that is.

Try to find a work of literature, a fairy tale, or folk tale in which threads, cloth, or clothing suggest something other than vanity, excess, or deceit. Salome's veils are complicit in a dance of lethal seduction; Cicero accuses embroidered language of obscuring truth and honest speech; Hans Christian Andersen's "The Emperor's New Clothes" ridicules over-weaning pride and power. At the advent of the 20th century, the protagonist of Paul Scheerbart's *The Gray Cloth* (1914) insists his wife wear only 90% gray and 10% white. The utopian architect worries that aggressively hued textiles will diminish the chromatic affects of his radical colored-glass buildings.

The moral of the stories: fabrications lie and thieve.

Tainted by these cultural prejudices against the feminine, the malleable, and the extravagant—in psychology, the irrational—textiles have been relegated to the interior, which itself has been sequestered and classified as ‘under,’ ‘behind,’ or ‘within’ for much of design history. Just think of the way the legendary modernist Adolf Loos concealed his taste for fur carpeting in the bedroom and velvet upholstery in the salon. The textile and the interior were too soft, too fragile, and too temporary to be exposed to scrutiny.

Fortunately, textiles are forgiving. As this collection of essays reveals, the perception of the textile as a kind of material ‘other’ has given way to more nuanced and productive understandings. This shift can be traced to a happy confluence of a number of factors. Perhaps among the most profound has been the rejection of dualities over the past century. There is a new regard for spaces and things that are interstitial, border crossing, and porous. As feminist philosopher Elizabeth Grosz observes:

This in-between is the very site for the contestation of the many binaries and dualisms that dominate Western knowledge.... The in-between is what fosters and enables the other’s transition from being the other of the one to its own becoming, to reconstituting another relation, in different terms.¹

The work of reconstitution is central to the project of *Textile Technology and Design: From Interior Space to Outer Space*. And Anni Albers “pliable plane,”² —the lynch pin for the opening essays—is the textile embodiment of Grosz’s “in-between.” Pliability

enables spaces—spaces made with cloth—to overlap, fold, and fuse; it yields spaces defined not by separation but by a dynamic of mutuality.

To that point, early on in *Textile Technology and Design*, we are reminded that felt, that most ancient of fabrics, has no inside or outside. It confuses the notion of boundary but still works as buffer (though not an airtight barrier) against sound and weather.

Ensuing essays explore the textile as a more overtly active surface—one that mediates not just between indoor and outdoor conditions but also between spaces and bodies. And here things get especially interesting, because this is not just about the corporal energies of people but also those that flow from the natural and built environment. When conjoined with sensors, robotic and nano technologies, then grafted into the structures of walls, floors and ceilings, textile structures can respond to all manner of forces—a human touch, a blast of heat, an animal’s movement—with varying degrees of autonomy. These performative hybrids have the potential to regulate micro and macro environmental conditions more attentively and sustainably.

In turn, we learn that self-actuated textiles are making new demands on their designers. Composed of reactive elements, they are newly unstable. As such, they need to be thought of differently. In addition working with tangible aspects of textiles, designers now also consider the intangible factors of movement and time and the inherent unpredictability of materials that do not sit still.

The prospect of a world in which the metabolisms and behaviors of things are not fully controlled by us has led to the coinage ‘posthuman’ – vaguely dystopian shorthand for the very real condition of our relations to things today. However, I prefer not to think in terms of pre- or post- but in terms of a continuum of interdependence. It is fairly self-evident that we would not have survived this long without textiles. Moreover, textiles have always been responsive to the biochemistry of human and non-human factors in their orbits. This is especially, and critically, true in the extreme conditions of outer space.

Fully one-third of this volume is concerned with designing with textiles for off-planet conditions, which, while vivid in popular imagination, still remain distant to most of us. But this is not the stuff of science fiction, no matter how experientially remote it may seem. Within the mother-load of history and technical achievement to be found in these chapters—fascinating in and of itself, there is also a valuable narrative of textile r&d writ-large. Experiments, such as those with life-saving space suits that react to changes in capsule interior temperatures, make it clear that relations between bodies, clothing, walls, floors, ceilings, and space are entering a new paradigm. Skins and surfaces, anatomies and operating systems, and their neuro-bio-chemical environments are being co-conceived and co-designed.

Fortunately for us, who still struggle to insulate ourselves inside and outside more ordinary windows and walls, these textile explorations in outer space are fruitfully cross-pollinating with earthbound practices, at the same time they look to realms beyond.

Now, if I can only find where I put my hat and gloves, I can venture out and look up at the sky, where, somewhere, someone else is cocooned by textiles, albeit under very different conditions. Nonetheless I suspect our basic needs and desires coincide in the textiles that offer comfort and survival and that all-important extra layer of wonder that makes it all worthwhile.

Notes

1. Grosz, Elizabeth. *Architecture from the Outside: Essays on Virtual and Real Space*. MIT Press, Cambridge, Mass., 2001, 92-93.
2. Albers, Anni, "The Pliable Plane: Textiles in Architecture," *Perspecta*, Vol. 4., 1957.