

THE *HUG* MACHINE

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“THE HUG MACHINE” SOUNDS LIKE SOMETHING YOUR GRANDMOTHER might shout—*Hug Machine!*—just before she loves you up in a brawny squeeze. Or perhaps it might be more conceptual, a “place” where the hapless go at the end of fuzzy co-counseling sessions, an act more choreographic than mechanical. In actuality, the Hug Machine is neither of these things. It is not a sex-toy nor a self-esteem booster, and it has nothing to do with your granny. It is not a novelty item. The Hug Machine (or Squeeze Machine) is a patented device fashioned from several panels of birch plywood, a design that is deceptively Spartan, if not ugly, considering that this simple contraption approximates human affection.

The machine has a suspiciously low-tech control panel. A single bright red knob on a metal stick controls the amount of “release” or “squeeze” applied by two padded “wings,” as the machine’s operator lies prone, on his/her stomach, in the center. Simply moving the lever brings the wings closer to the body at its center, where they will stay until the operator moves the lever to release, thereby completing, in a very technical form, the full cycle of a single hug. Despite the device’s simple presentation and its narrow function, despite its New-Age-y name, the Hug Machine’s main purpose is profoundly therapeutic: it was designed to ease some of the most abstruse symptoms of autism.

The Hug Machine received its first medical studies in the mid 1990s. Years earlier, however, the machine’s designer, Temple Grandin, fashioned a more rudimentary version for her own use when she was only 18-years-old. Grandin is today an animal behaviorist, designer of livestock facilities, and an author of several books (and two videotapes). She also was very recently dubbed “our most famous autistic.” Many people first learned of Grandin and her extraordinary life



through the writing of Oliver Sacks, in the title essay of his book *An Anthropologist on Mars*. Since first appearing in Sacks' book, Grandin has moved from character to narrator, making a name for herself as a writer, animal expert, and, perhaps most importantly, as the creator of the Hug Machine.

Autism, as Grandin writes in *Thinking in Pictures*, is a complex diagnosis describing a broad continuum of symptoms; "the behavioral criteria are constantly being changed." Despite the diverse ways in which autism may manifest itself in any particular case—commonly including tantrums, speechlessness, appearance

of deafness, and staring into space—most people with autism suffer a sensory conundrum: the need for “deep pressure touch” partnered with an intolerance for touch from other people. As a child, Grandin solved this conflict by burrowing under sofa cushions or wrapping herself in many blankets. She longed, however, for something more drastic, with uniform pressure applied on the full surface of her form. She describes the object of these earliest fantasies as something akin to an inflatable full-body splint.

Grandin derived the specific design of the Hug Machine (or Squeeze Machine as its manufacturer, the Therafin Corporation calls it) from her observations of livestock facilities. Watching cattle being lead to slaughter, branding facilities, or vaccination, Grandin observed that the cattle were often panicked, with the exception of those cattle who first received pressure from cattle squeeze chutes. Even in the case of animal slaughter, Grandin believed it was important to fine-tune a more humane form of death, and she generated several radical designs for stockyards, corrals, and chutes for farm use. Ultimately, her efforts to squeeze livestock had implications for livestock *and* for people. Connecting the soothing effect of the squeeze chute with her own insatiable search for deep pressure, Grandin tried the cattle chute on her own body with her aunt manning the chute’s controls. After her initial panic, Grandin experienced waves of relief, and set out to design a squeeze chute specifically calibrated for autistic children and adults.

As early as 1955, scientists were observing the effects of deep pressure on humans, documenting results including a “decrease in pulse rate, metabolic rate, and muscle tone.” Cruder, predecessors of the Hug Machine included a device made up of two air mattresses, a canvas “wrap” and a pulley. It was not until Grandin perfected her own device, however, that machinery assisting with deep pressure was introduced into classrooms and therapeutic settings around the country.

Today, the Therafin Corporation fabricates Grandin’s Hug Machines in the small town of Mokeno, Illinois, a town too small to prick on a map. I visited the factory in the spring of 2001. The season was more of a personal worst than best for me, and it may have been my dampened-if-not-sagging spirits that oriented me toward something (anything!) called a Hug Machine. Inside the factory were a plethora of props: Think of David Maccauley’s book *The Way Things Work* (which describes the ways by which everything from zippers to computers actually work). Now think of a sequel to that book sharing the very premise of this factory: *The*

Way Things Work When Things Don't Work. When knees don't bend, when neurons don't fire, when bodies freeze...

There is something perversely comforting in the existence of four-foot shoehorns, cards you can play with your mouth, or a pointer to strap to your head. The absurd constructions of these items (altered, distorted versions of the archetypal shoehorns, pointers, forks) was of course a sort of tragic comedy, when understood in context of the circumstances that might require a person to need any of these things. In the midst of my maudlin inventory of accidents and illnesses, I wondered what would happen if these devices ended up in a time capsule, to be dug up in 100 years. What would these artifacts say about the way we are? Or maybe the way we aren't? Though none of these devices were designed for me, nor do I have any need or excuse to use them, it gives me faith that we will be taken care of. If there are four-foot shoehorns in the world, someone has thought of our every need, even if the need is as basic as not bending down.

These thoughts had something to do with the strange quality of the tour I took through the Therafin factory. Despite my notepad, I quickly dispelled any pretense of professional decorum with a tamped-down spell of weeping, as my factory guide entered the Hug Machine. He lay down and rested his chin on the fake fur. He activated the pneumatic valve, which brought the wings closer to his body. Admittedly, his entry was a bit obscene, and unavoidably so. The machine's design requires one to climb "in" to the winged creation, ass in the air. The demonstration required quite literally an ass-backwards approach, and I found myself videotaping something that didn't quite translate its wholesomeness when seen through the viewfinder. I was crying much less for anyone using these devices and much more as a tribute to those who designed them. And for the ways in which these items showed what is 'wrong' with us, or what might be 'wrong' with us one day. Here was proof that our needs have been considered. Thoroughly.

The man released the pressure and awkwardly stepped out. We shook hands and I waited for my mother to pick me up outside the factory. I had asked her to wait for me in the town's small park, and she very gently mentioned that the park was actually a cemetery, but that she was still happy to go there. And while my mother was peacefully surrounded by the dead of Mokena, Illinois, I was comforted by my own surroundings, which bore the stamp of the living, in all of their most diverse circumstances.