FAST COMPANY

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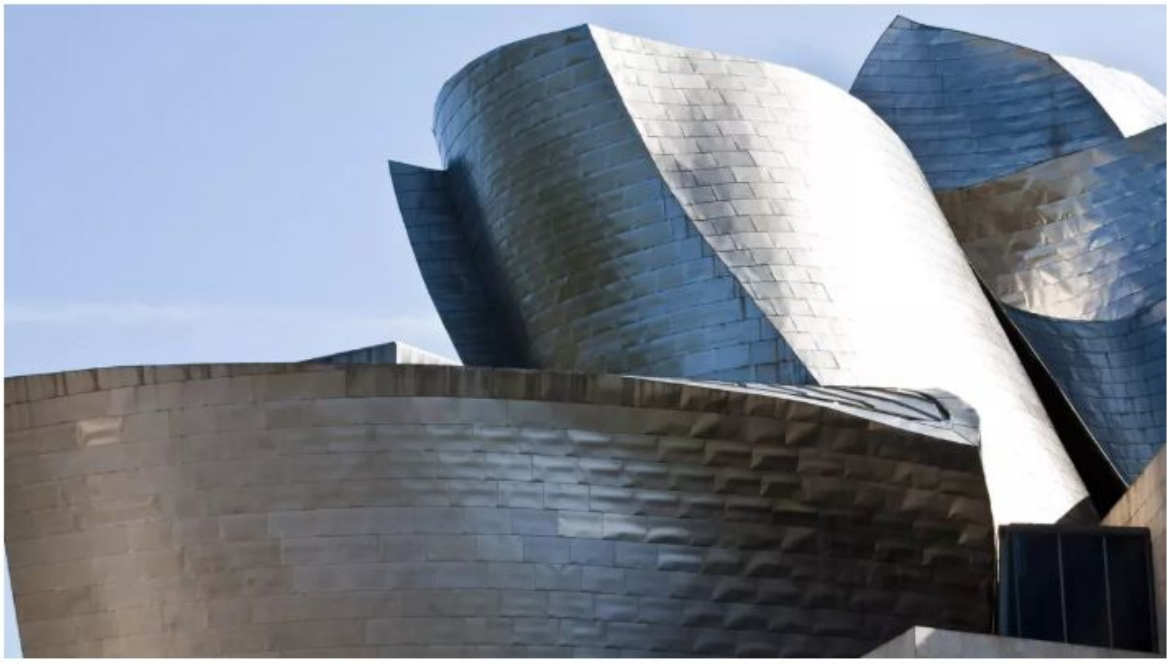
Why Our Brains Love Curvy Architecture

People are far more likely to call a room beautiful when its design is round instead of linear. The reason may be hard-wired into the brain.



When the great architect Philip Johnson first visited the Guggenheim Museum in Bilbao, designed by Frank Gehry, he started to cry. “Architecture is not about words. It’s about tears,” Johnson reportedly said. Something about the museum’s majestic curves moved him at an emotional level. Many others must get a similar feeling, because the building is usually ranked among the most important in modern times.

Whether or not Johnson and Gehry realized it, the Bilbao and its swirling façade tapped into a primal human emotional network. Time and again, when people are asked to choose between an object that’s linear and one that’s curved, they prefer the latter. That goes for watches with circular faces, letters rendered in a curly font, couches with smooth cushions–even dental floss with round packaging.

It’s worth noting this isn’t a men-love-curves thing; twice as many women as men took part in the study. Roundness seems to be a universal human pleasure.

Beauty ratings were just the first step in the study. The researchers also captured the brain activity that occurred when the study participants in the imaging machine considered the pictures. Turns out people looking at curved design had significantly more activity in a brain area called the anterior cingulate cortex, compared to people who were looking at linear decorations. The ACC has many cognitive functions, but one is especially noteworthy in the context of Vartanian’s study: its involvement in emotion.

So curved design uses our brains to tug at our hearts. Some of us cry outside great buildings as a result. Some of us reach for another brand of dental floss. Some of us, beyond all rational judgment, type in Comic Sans font. “Our preference for curves can not be explained entirely in terms of a ‘cold’ cognitive assessment of the qualities of curved objects,” Vartanian tells Co. Design. “Curvature appears to affect our feelings, which in turn could drive our preference.”

Another brain imaging study, conducted several years ago by Moshe Bar of Harvard Medical School, found that viewing objects with sharp elements–once again, square watches, pointy couches, and the like–activated the amygdala. That’s the part of the brain that processes fear. Bar and collaborator Maital Neta proposed that since sharp objects have long signaled physical danger, human brains now associate sharp lines with a threat. Curves, meanwhile, may be seen as harmless by comparison.

“In other words,” says Vartanian, “we prefer curves because they signal lack of threat, i.e. safety.”

Psychology Today

Sally Augustin Ph.D.
People, Places, and Things

Curvy or Not?

Straight and curved lines affect us in different ways.

Posted Apr 13, 2011

Imagine this: You're standing in the furniture store staring at a pair of sofas, both of which are demanding to come home with you. One is curvier than the other--its legs are bowed a little bit, its stuffing is a little plumper, and its armrests curvaceously cuddle your forearms. The other sofa has been crafted by someone who owns a protractor; its lines are pretty much straight and meet at carefully pre-determined angles (we are talking upholstered furniture here, there is a limit to any sort of precision). Both sofas are covered in the same fabric and are equally comfortable to sit on.

Recent research done with images shows that we think that furniture with an organic look, and rounded forms, is more relaxing than angular designs. The cited investigation, by Dazkir and Read ("Furniture Forms and Their Influence on Our Emotional Responses Toward Interior Environments," *Environment and Behavior*), is just the last in a long line of studies indicating that people generally feel differently about things that are rounded as opposed to angular.

A space filled with curvy things would be oppressive, just like one in which all lines and planes meet at right angles. Select the sofa that seems to be the best fit with your outlook on life. And remember, as you choose sofas and wallpapers for your home or office, surfaces and lines that curve or meet at right angles do matter.

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The People Who Store Their Emotions in Their Fingertips

By Cari Romm

Photo: James Day Photography Ltd/Getty Images

“It makes sense that the word *feeling* can refer to an emotion and a sense of touch. Like smells and songs, certain textures can call up specific emotional states — the sense of calm coziness, for example, that comes from stroking the fur of a cat, or wrapping yourself up in a fleecy blanket.”

“Most of the time, these connections follow pretty predictable patterns. Studies on touch preference over the years have generally yielded the same results: We like things that are soft or smooth; we dislike things that are jagged or sharp; depending on what we’re feeling, we experience a mild sense of pleasure or displeasure. Research has shown that these preferences can have measurable effects, influencing our moods and how we relate to others. We’ve made room for these patterns in our metaphors, too: A particularly harrowing experience is “rough.” A sweet moment makes you feel “warm and fuzzy.”

“In some rare cases, though, the link between touch and emotion can take some strange and extreme turns. Imagine being so disgusted by denim, for example, that running a hand over jeans makes you want to puke. Or feeling the urge to laugh whenever you touch silk. Or getting the creeps whenever you put on a fabric glove. That’s life for people with tactile-emotional synesthesia, a mysterious condition in which seemingly arbitrary textures can be enough to make someone laugh or cry.”

“Tactile-emotional synesthesia is among the rarest forms, or at least one of the most sparely studied. It was first identified in 2008 by V.S. Ramachandran, a neuroscientist at the University of California, San Diego, and his former graduate student David Brang, now a postdoctoral research fellow at Northwestern University. In the journal *Neurocase*, the researchers described the unusual experiences of two women in their 20s, AW and HS: Both were mentally and neurologically normal, except for the fact that both women, since early childhood, had experienced strong emotions brought on by certain textures. “Certain types of textures evoke raw or primal emotions such as joy or disgust,” the authors wrote, “whereas others generate subtle nuances of emotion such as jealousy or guilt”

“Researchers still don’t know precisely what causes tactile-emotional synesthesia, but Ramachandran believes it has to do with excess connections between different areas of the brain: “In the brain of the fetus, everything is connected to everything. And there are genes which then prune these connections, sculpt the modular organization of the adult brain, so they remove the excessive connections,” he explains. But in some cases, these genes express themselves abnormally, leaving stronger-than-normal links.”