

Color coded based on thoughts
not the legend

Simon Anholt, proposed the playful tagline "No talking, but action." And a Finnish watch company, Rönkkö, launched its own new slogan: "Handmade in Finnish silence."

"We decided, instead of saying that it's really empty and really quiet and nobody is talking about anything here, let's embrace it and make it a good thing," explains Eva Kiviranta, who manages social media for VisitFinland.com.

Silence is a peculiar starting point for a marketing campaign. After all, you can't weigh, record, or export it. You can't eat it, collect it, or give it away. The Finland campaign raises the question of just what the tangible effects of silence really are. Science has begun to pipe up on the subject. In recent years researchers have highlighted the peculiar power of silence to calm our bodies, turn up the volume on our inner thoughts, and attune our connection to the world. Their findings begin where we might expect: with noise.

The word "noise" comes from a Latin root meaning either queasiness or pain. According to the historian Hillel Schwartz, there's even a Mesopotamian legend in which the gods grow so angry at the clamor of earthly humans that they go on a killing spree. (City-dwellers with loud neighbors may empathize, though hopefully not too closely.)

Dislike of noise has produced some of history's most eager advocates of silence, as Schwartz explains in his book *Making Noise: From Babel to the Big Bang and Beyond*. In 1859, the British nurse and social reformer Florence Nightingale wrote, "Unnecessary noise is the most cruel absence of care that can be inflicted on sick or well." Every careless clatter or banal bit of banter, Nightingale argued, can be a source of alarm, distress, and loss of sleep for recovering patients. She even quoted a lecture that identified "sudden noises" as a cause of death among sick children.

Surprisingly, recent research supports some of Nightingale's zealous claims. In the mid-20th century, epidemiologists discovered correlations between high blood pressure and chronic noise sources like highways and airports. Later research seemed to link noise to increased rates of sleep loss, heart disease, and tinnitus. (It's this line of research that hatched the 1960s-era notion of "noise pollution," a name that implicitly refashions transitory noises as toxic and long-lasting.)

Studies of human physiology help explain how an invisible phenomenon can have such a pronounced physical effect. Sound waves vibrate the bones of the ear, which transmit movement to the snail-shaped cochlea. The cochlea converts physical vibrations into electrical signals that the brain receives. The body reacts immediately and powerfully to these signals, even in the middle of deep sleep. Neurophysiological research suggests that noises first activate the amygdalae, clusters of neurons located in the temporal lobes of the brain, associated with memory formation and emotion. The activation prompts an immediate release of stress hormones like cortisol. People who live in consistently loud environments often experience chronically elevated levels of stress hormones.

Just as the whooshing of a hundred individual cars accumulates into an irritating wall of background noise, the physical effects of noise add up. In 2011, the World Health Organization