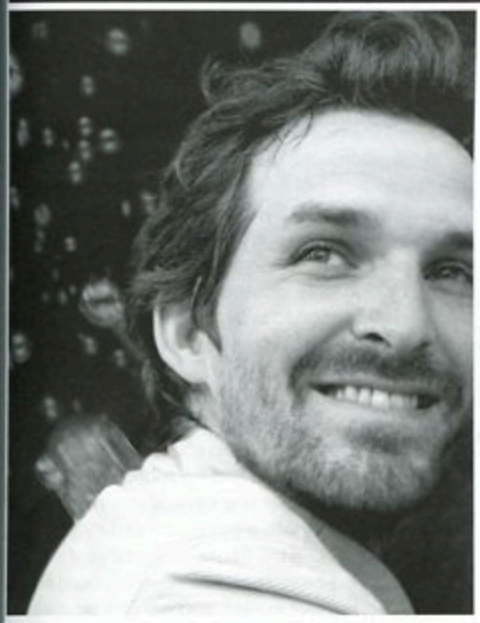
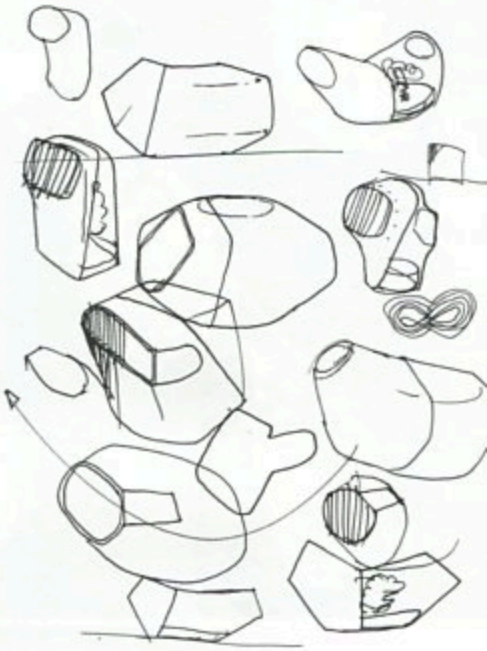


Guilt ridden for encouraging consumerism, Paris industrial designer Mathieu Lehanneur recognized the chance to redeem himself when Harvard scientist David Edwards introduced him to his integrated art-science approach. In an effort to take responsibility for some of design's undesirable effects, in 2006 Lehanneur reviewed research conducted by NASA between 1986 and 1994 into air-purifying systems and plants' efficiency at absorbing and eliminating pollutants in spacecraft. Using some of the species NASA found most effective at capturing toxic compounds, the duo developed an off-the-rack, beautifully designed filter for domestic use.



Named Andrea, after Lehanneur's son, the "green brain in a spacecraft" morphed several times throughout the design-and-test process as the duo experimented with different materials and prototypes. Their first attempts employed Pyrex glass and aluminum, but they switched to a fully polycarbonate body to reduce costs. In another prototype, they used glass tubes to draw in air as closely to the leaves as possible; still others incorporated a mirror cavity to reflect outdoor light, or white glass to give the plants a ghostlike presence.

Borrowing from NASA's list of most toxin-relieving greens, Lehanneur employed spider plants, peace lilies and aloe vera in each prototype, enclosing them in giant glass containers diffused with precise levels of toxins, including formaldehyde, benzene and trichloroethylene (from plastics and paints, mostly), found in a typical home. "Minute after minute, we wrote down the pollution rate in the cubes," says Lehanneur. The researchers discovered that the most efficient design was a polycarbonate cranial box equipped with nothing more than a fan and a water basin.

Working on AC power, Andrea also employs white LED lights, so plants can thrive even when the purifier is placed in a dark space. The mobile mini-greenhouse is ideal for "anywhere you want to breathe easy," says Lehanneur, from the kitchen to the bedroom, living room or office. David Edwards' Le Laboratoire, the experimental, collaborative art-science centre in Paris where Andrea was born, has facilitated the purifier's mass production. Now, that's plant power. *www.lelaboratoire.org*

NINA BOCCIA