In a 2009 interview in Art In America, Mierle Laderman Ukeles is critical of Richard Serra and Donald Judd for dis-acknowledging the maintenance in their work with steel and carpentry, stating that: “They didn’t have workers, they didn’t have people, they had objects — or they had results. And I felt that they were falling into the same trap as the rest of this damn culture, which couldn’t see the whole structures or cultures of workers that made the kind of work that invented these processes and refined them” [1]. The practice of glorifying individualization as innovation and ignoring group preservation has set us on a dangerous path which hinders the diffusion of new ideas. Social media presents us with a continuous flow of brilliant innovations from edible kitchen utensils and electric cars to stem cell therapies. However, most people never have the opportunity to integrate these innovations into their actual lives. The constant news of life changing inventions that never reach us contributes to a culture of innovation fatigue and a sense that new technologies are out of the reach of the masses. Our projects such as the Mobile Sauna, Sweat Batteries, Pink Noise Salon, Total Jump, SuperTurd and Shareable Biome deal with social rejuvenation and do the work of Maintenance Art. Maintenance is not only essential to survival, it is in and of itself a form of rejuvenation fostering an environment where the gains of innovation are widely distributed.
In *Manifesto for Maintenance Art 1969!* Ukeles describes “separation; individuality; Avant-Garde par excellence...” as a death instinct and “unification; the eternal return; the perpetuation and MAINTENANCE of the species...” as a life instinct [2]. Communities often form in times of need as a sort of survival instinct. Neighbors who have never talked to one another may join forces if recovering from a natural disaster. In the aftermath of the “Century of the Self” and in the midst of a culture that worships the idea of individual genius, symbolized by people such as Steve Jobs, how can we maintain communal health without necessitating a catastrophe? This was the impetus behind our *Mobile Sauna* project. Our sauna is built on a trailer so it can enter into cultures that are becoming increasingly privatized to provide opportunities for healthy, relaxing neighborliness. During a *Mobile Sauna* session at the New Museum’s Ideas City Festival we invited bathers to donate their sweat as the active ingredient in an electrical battery produced on the spot. The mundane waste sweat was transformed into energy and used to charge cell phones encouraging participants to invite their friends and neighbors.

When we embrace long-scale survivalism, such as practices of eliminating waste by transforming it into energy, we are able to live more symbiotically with other systems on Earth. Naturally occurring systems such as rhizomatic networks of mycelium, the microbiome ecology, and emergent pink noise are inspirations for the shared experiences we construct as artists. During a residency at the Flux Factory in NYC we developed a project around pink noise which is an energy pattern
known to have relaxing, meditative effects and is notable for its occurrence in nature (waterfalls, heart rhythms.) We were surprised to discover that the sound of a hundred YouTube videos playing simultaneously also tends toward pink noise. The *Pink Noise Salon* presents a series of wearable listening devices and investigates the value of filtering cultural overstimulation and alleviating symptoms of innovation fatigue. Our *Pink Noise Salon* concluded with an exercise in Deep Listening: we led participants in a communal hum during which they listened and responded to each other’s humming to create a balanced and meditative sonic environment. We used similar techniques, and a text inspired by autohypnosis, to lead a group meditation on the microbiome as part of our *Shareable Biome* work this past Fall. We guided participants in a chant encouraging the maintenance of a healthy, diverse, and well-tuned microbiome. The meditation expanded from a focus on individual health to generate feelings of conjoined responsibility. We see these performances as maintenance that provides participants with atypical shared experiences. We hope these group relaxations and moments of neighborliness contribute to the ongoing rejuvenation of networks supporting their lives.

Our current *Shareable Biome* project is rooted in a fascination with microbiome theory and Western culture’s recent adoption of the Fecal Microbiota Transplant (FMT) as a radically life-saving probiotic procedure. The rapidly increasing accessibility of this treatment is largely due to the work of the non-profit stool bank OpenBiome. OpenBiome is a great example of a sharing community and it is groups like this that are doing the heavy lifting needed to overcome the “Century of the Self.” FMTs exemplify the sort of transmutation of waste that is integral to the implementation and sustenance of livable ecologies. In *The Pasteurization of France*, Bruno Latour described microbes as an invisible, ageless force that at times has shown itself more powerful than humanity [3]. The Bubonic Plague was no doubt a massive confrontation with this force, a kind of World War 0 where humanity lost spectacularly (at least in Europe). The trauma of the plague’s devastation might still be repressed within us. The children’s game where players link hands in a circle, chant “ring around the rosie”, and all fall down on the ground reminds some of Bubonic Plague symptoms and issues a warning about its spread. What if the game is more than vestigial
plague trauma but a kind of sociobiological defense mechanism encouraging the sharing of germs to build up immature immune systems? This game play seems to be a healthy counterpart to the paranoid use and even abuse of antibiotics. Our *Shareable Biome* game *SuperTurd* is meant to seduce people into exchanging bacteria through playing cards while learning about ecology via the playful characterizations of actors (foods, medicines, etc.) affecting microbial diversity. Players can compete to avoid getting cards that reduce diversity and strive to receive a SuperTurd which replenishes points if their microbiome becomes dangerously depleted.

It is no surprise that Martin Blazer, the world's leading researcher on H. Pylori bacteria ecologies in humans, called his recent book *Missing Microbes: How the Overuse of Antibiotics Is Fueling Our Modern Plagues* [4]. Our germ theory quest for silver bullet cures has backfired: we are now inundated with radical monoculture infections that threaten to fuel our modern plagues. The microbiome theory, which appreciates the general ecology over specific pathogens, is helping us suss out the way that microbiology intersects with and is co-constituted by economic and social issues specific to our contemporary sociocultural matrix. As part of a series of data visualizations for *Shareable Biome* we created a series of *Sphinctegraphs* that consist of color coded pie charts illustrating the gut bacteria ecologies of OpenBiome’s anonymized stool donors, whose poop—inundated with healthy bacteria—is used to combat deadly disease. Although people can have a thousand species of bacteria in their gut, we were able to use machine learning software to boil hundreds of variables down to just ten patterns. “Culture” refers to bacterial colonies as well as human

*Sphinctegraphs (gut bacterial ecologies of 24 FMT donors), Caitlin Foley & Misha Rabinovich, data from OpenBiome, topic modeling with rost-cli, dimensions variable, 2015*
collective truth. The latest scientific research suggests that our microbiome cultures greatly influence our thoughts and feelings while our human culture greatly impacts the health of our microbiome. The familiar sphincteric form of the pie chart aims to create a comfortable experience for the viewer, ideally contributing to a culture of celebration and appreciation, instead of disgust for bodily functions. This intersection of cultures is also the basis for our forthcoming Garden of Sphincteral Delights, a microbially diverse space in which attendees can rest and rejuvenate together.

Maintenance and innovation have a symbiotic relationship but our culture has developed a tendency to praise the individual innovator while rendering maintenance work invisible. Like SuperTurd, our installation Total Jump also takes advantage of social gaming dynamics. The multiplayer game prompts a reflection on humanity's active role in transforming planet Earth. Participants stand on floor mat sensors and follow a visual countdown to jump and land on zero. Could a worldwide jump where every living able-bodied human jumps up and lands at exactly the same time unite humanity and transcend our divisions? The near impossibility of accomplishing a worldwide Total Jump on one hand and the ease and fun of training for it on the other invites the audience to bridge the gap between a post modern pluralistic world and the necessity of global coordinated actions in the face of the Anthropocene. This sort of shared experience has the capacity to inspire thought experiments and dark discussions [5] while making visible the maintenance work required for a healthy culture.

Total Jump, Caitlin Foley & Misha Rabinovich, step sensors, custom software, mac mini, monitor, speakers
References: