

INVOICE

Invoice Number : G-002
Invoice Date: 9/15/2015
Bill to: Los Angeles County Museum of Art
Attn.: Joel Ferree
For: Art + Technology Lab Grant / Milestone #2

Details:

artist fee for 5 months of production of prototypes and drawings: [REDACTED]

materials and supplies for prototypes: [REDACTED]

travel to Los Angeles (including flight and car rental): [REDACTED]

TOTAL DUE: [REDACTED]

Payable to: Jonathan Keats (working as Jonathon Keats)
Address: [REDACTED]

Thank you.

SUPEREGO SUITS

by Jonathon Keats

LACMA Art+ Technology Lab

2015-16

Summary Report #2 [Revised]

September 18, 2015

Part I - Completed Work

Since filing my first Art + Technology Lab summary report two months ago, I have steadily undertaken the proposed research, and have made significant progress in the development of my concept of sartorial neuroscience. I have also, more unexpectedly, begun to investigate the potential of a neuroscientific concept car as a result of my meeting with Hyundai representatives in August. I will elaborate on each of these topics in turn.

In the realm of sartorial neuroscience, I have now read and annotated dozens of pertinent scientific papers. These have informed my understanding of interoception, proprioception, body schema, power poses, and embodied free will, key concepts in my approach to neuroscientific fashion. Here is a list of ten papers that have been especially important to my thinking, and to the conceptual development of new garments:

Breathing and sense of self: visuo-respiratory conflicts alter body self-consciousness.

Respir Physiol Neurobiol. 2014 Nov 1;203:68-74. doi: 10.1016/j.resp.2014.08.003. Epub 2014 Sep 4.

Turning body and self inside out: visualized heartbeats alter bodily self-consciousness and tactile perception.

Psychol Sci. 2013 Dec;24(12):2445-53. doi: 10.1177/0956797613498395. Epub 2013 Oct 8.

Just a heartbeat away from one's body: interoceptive sensitivity predicts malleability of body-representations.

Proc Biol Sci. 2011 Aug 22;278(1717):2470-6. doi: 10.1098/rspb.2010.2547. Epub 2011 Jan 5.

Some proprioceptive influences on the perceptual representation of body shape and orientation.

Brain. 1988 Apr;111 (Pt 2):281-97.

My shadow, myself: cast-body shadows are embodied.

Psychon Bull Rev. 2014 Jun;21(3):676-81. doi: 10.3758/s13423-013-0545-6.

Compressing perceived distance with remote tool-use: real, imagined, and remembered.

J Exp Psychol Hum Percept Perform. 2012 Feb;38(1):80-9. doi: 10.1037/a0024981. Epub 2011 Sep 19.

Modulation of pain threshold by virtual body ownership.

Eur J Pain. 2014 Aug;18(7):1040-8. doi: 10.1002/j.1532-2149.2014.00451.x. Epub 2014 Jan 21.

Power posing: brief nonverbal displays affect neuroendocrine levels and risk tolerance.

Psychol Sci. 2010 Oct;21(10):1363-8. doi: 10.1177/0956797610383437. Epub 2010 Sep 20.

The ergonomics of dishonesty: the effect of incidental posture on stealing, cheating, and traffic violations.

Psychol Sci. 2013 Nov 1;24(11):2281-9. doi: 10.1177/0956797613492425. Epub 2013 Sep 25.

Embodied free will beliefs: some effects of physical states on metaphysical opinions.

Conscious Cogn. 2014 Jul;27:147-54. doi: 10.1016/j.concog.2014.05.001. Epub 2014 Jun 2.

Simultaneously I have been researching the history of clothing and fashion, which has provided me with historical context and aesthetic/structural ideas for my own clothing. The following are eight of the books that have most significantly informed my work so far:

Survey of Historic Costume, by Tortora and Eubank
The Fashion Encyclopedia, by Emily Angus et. al.
Costume and Fashion, by James Lavier
The Anatomy of Fashion, by Susan Vincent
The Corset: A Cultural History, by Valerie Steele
Shoes: A History from Sandals to Sneakers, by Riello and McNeil (eds.)
Heights of Fashion: A History of the Elevated Shoe, by Elizabeth Semmelhack
100 Years of Fashion Illustration, by Cally Blackman

In addition, I have been researching technologies that might be relevant to the implementation of my ideas. Much of the specific research has been web-based, but I have also been reading more broadly in order to be generally informed about technological developments that may serendipitously help me to realize my designs. The following science and technology periodicals have been especially helpful: *New Scientist*, *MIT Technology Review*, *The Register*, *Science*, *Nature*, *Extreme Tech*, and *Gizmag*. (For example, through my reading of *New Scientist*, I learned about new research in haptic holograms that could potentially be used in place of mechanical actuators.)

Concurrent with my reading, annotating and note-taking, I have begun sketching out ideas for the garments I will prototype over the next several months. Much of this work has taken the form of literal sketching. (Several sample sketches are included with this report.) I have simultaneously begun to experiment with materials ranging from pneumatic tubes to turnbuckles. This process has helped me to decide on some of the garments and accessories I will fabricate for the fashion shoot at LACMA next year. These most likely will include interoceptive sunglasses, a power pose jacket, and elevator shoes that promote the sensation of free will.

As mentioned above, I have also had a fortuitous meeting with John Suh and Jenny Kim at Hyundai Ventures. During the meeting, we discussed the idea of applying several of my innovations to a concept car that would be seamlessly integrated with the driver at a neuroscientific level. With their encouragement, I researched these ideas in greater depth, and outlined them in a formal proposal (a copy of which is included with this report). I am currently awaiting their response, to see whether a long-term in-depth collaboration will be feasible.

Part II - Impending Work

From February 27th through March 5th, I will be in Los Angeles for my Art + Technology Lab residency. During that time, I will orchestrate a fashion shoot in collaboration with photographer Elena Dorfman – showcasing my garments on live models – and I will give a talk about my inventions at the Lab. The five months between now and my residency will be dedicated primarily to the development and hand-fabrication of three to five prototypes that will be worn by the models and shown during my talk.

My prototypes will all be awkwardly mechanical. They will conceptually explore the functionality of future neuroscientific couture, but will also be artworks in their own right. (The awkwardness will sculpturally evoke unresolved philosophical issues that arise when we offload aspects of our personalities to technology.) I will build the

prototypes primarily from scavenged and repurposed materials. Preexisting garments will serve as the 'chassis' for these experimental wearables. I will also continue to conduct research and to make sketches, drawings and collages as I create and refine my prototypes.

Due to the open-endedness of my process, I expect the inventions to go through multiple iterations, with many failures along the way. As a result, I am proposing a budget of [REDACTED] for my time and [REDACTED] for materials over this five-month period. I will also need approximately [REDACTED] for travel, as I will make a trip to Los Angeles at the end of September to meet with Elena Dorfman and Britt Savelsen at LACMA to conceptualize next year's photo shoot.

Between now and March, I will also dedicate as much time as needed to further development of my potential collaboration with Hyundai, including research, meetings, and the creation of a more detailed proposal. In addition, while I am in Los Angeles, I will meet with SpaceX and Gensler to explore potential areas of collaboration. Depending on the result of these conversations, I will follow up with research and preliminary proposals.

Part III - Anticipated Work

I anticipate no major changes to the first two milestones outlined in my previous summary report. Beyond that, I may propose to make adjustments, depending on developments at Hyundai and advice from the Art + Technology Lab. The following is a potential outline of Milestone #3 and beyond with alternatives indicated if work with Hyundai becomes serious.

Milestone #1 (Completed):

background research and conceptual drawings / July-August / [REDACTED] *for artist's time*)

Milestone #2:

visit to LACMA to scout photo shoot / September / [REDACTED] (*[REDACTED] for travel expenses*)
handmade prototype fabrication of neuroscientific garments by artist / September-January / [REDACTED] (*[REDACTED] for artist's time + [REDACTED] for materials*)

Milestone #3:

photo shoot of models wearing prototypes at LACMA (public event) / March / [REDACTED] (*[REDACTED] for photographer and shoot + [REDACTED] for artist's travel and time*)
presentation of prototypes at A+T Lab (artist talk) / March / see above

PLUS

phase-one development of one working prototype garment with engineers / February-April / [REDACTED] (*[REDACTED] for artist's time + [REDACTED] for engineering*)

OR

conceptual development and initial renderings of neuroscientific vehicle with Hyundai / February-April / [REDACTED] (*[REDACTED] for artist's time + [REDACTED] for travel*) and

development of neuroscientific garments by artist (phase two) / February-April / [REDACTED]
([REDACTED] for artist's time + [REDACTED] for materials)

Milestone #4:

phase-two development of one working prototype garment with engineers / April-July / [REDACTED]
([REDACTED] for artist's time + [REDACTED] for engineering)

OR

preliminary development of vehicle technologies with Hyundai engineers April-July / [REDACTED]
([REDACTED] for artist's time + [REDACTED] for travel) and

development of neuroscientific garments by artist (phase three) / February-April / [REDACTED]
([REDACTED] for artist's time + [REDACTED] for materials)

Milestone #5:

experiments with working garment prototype at A+T Lab (public event) / July / [REDACTED]
([REDACTED] for artist's travel and time)

OR

automotive research presentation/demo at A+T Lab (public event) / July / [REDACTED] ([REDACTED]
for artist's travel and time)

Milestone #6:

documentation and visualization of experiments including public feedback / July-August
/ [REDACTED] ([REDACTED] for artist's time)

potential exhibition of prototypes and/or visualizations at LACMA / August+ / \$0

OR

first phase of construction of concept car prototype with Hyundai (with prototyping to be
continued after grant period) / July-August / [REDACTED] ([REDACTED] for artist's time)

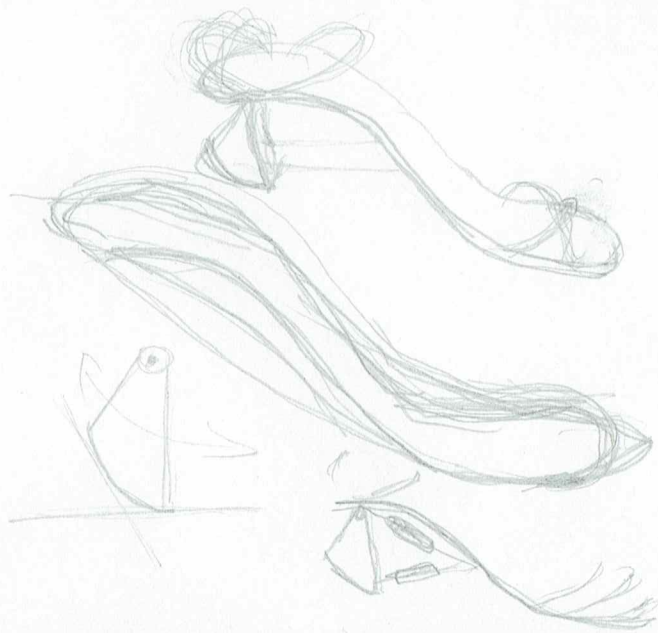
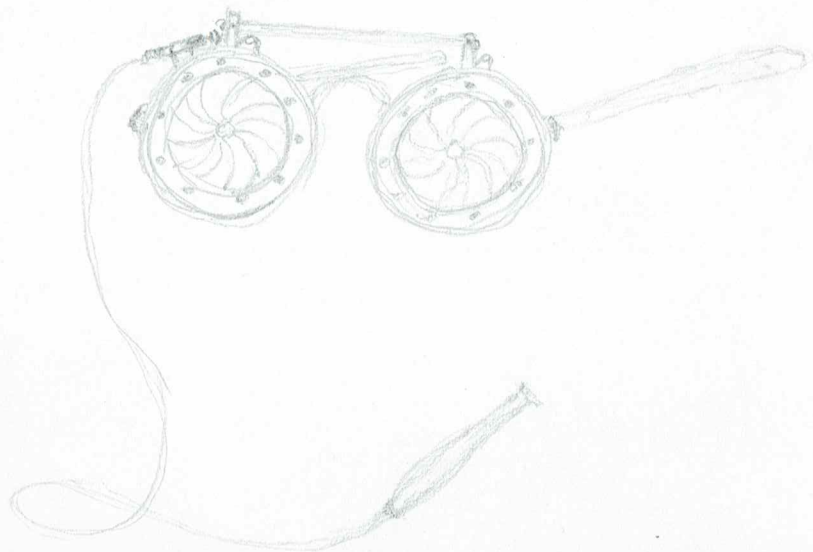
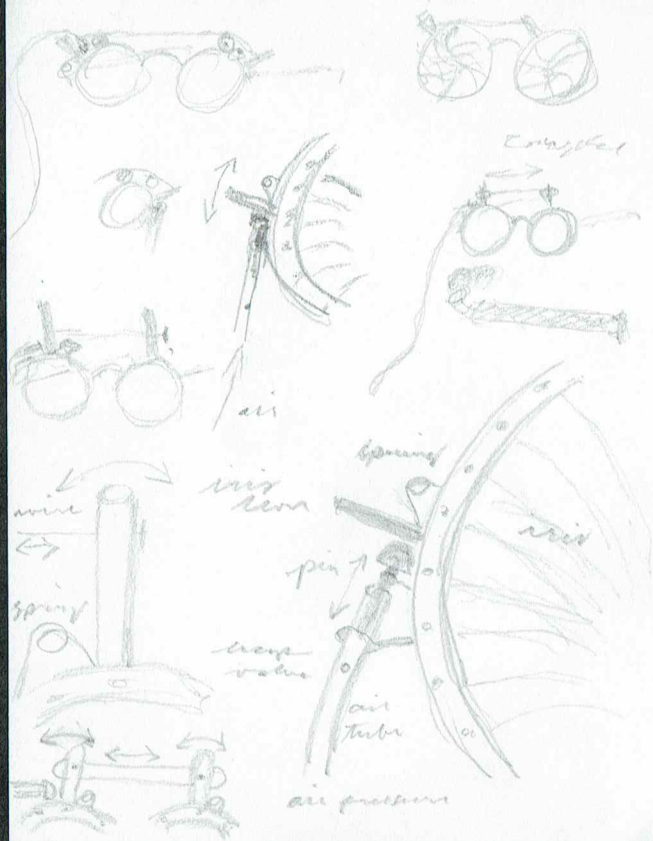
potential exhibition of prototypes and/or visualizations at LACMA / August+ / \$0

Potential Future Milestones (post-grant)

construction of concept car prototype with Hyundai

presentation of concept car prototype in museums and auto shows

further development of concept car prototype with Hyundai



THE ROADABLE CORTEX
Proposal for a Neuroscientific Concept Car
in Collaboration with Hyundai Ventures

by Jonathon Keats
August 2015

contact:



PROJECT OVERVIEW

According to a new *Business Insider* report, 10 million driverless cars are expected to hit the road within the next five years. Google and Apple are racing to join the automotive industry. Traditional car manufacturers are investing billions of dollars in R&D.

There are many reasons to believe that the car of the future will be autonomous. If so, we should expect people to identify less and less with their vehicles. Self-driving cars will be more viable as a service than as a product, becoming as anonymous as taxis. As artificial intelligence increases, we might completely lose the ability to drive, not to mention the opportunity. Movement will be strictly algorithmic. Roads will be off-limits to humans.

However the driverless car is not a foregone conclusion. There are technological and cultural reasons why driving may persist for the foreseeable future. Every driverless accident provokes questions about safety and responsibility. And we should remember that the self-driving car has been promised repeatedly since the 1950s, when General Motors collaborated with RCA on an autonomous Thunderbird. Four decades later, Congress mandated that driverless cars would be on highways by 1997. Like roadable aircraft, the driverless car seems forever on the horizon.

What if the future of the car is *not* driverless? How might the car of 2020 take advantage of current technologies? How might the automotive industry evolve most intelligently? How might drivers benefit from cutting-edge science? In collaboration with Hyundai Ventures and the LACMA Art + Technology Lab, I propose to develop a concept car to explore these crucial questions – and to present a decidedly unexpected answer.

If the self-driving car is not the next stage in automotive evolution, then we can expect cars to remain personal possessions, potent expressions of the driver's identity as much as they're practical means of transportation. In fact, it's likely that our identification with our vehicles will intensify, much as has happened with other personal technologies such as computers and cellphones. Cars will increasingly become a part of us, a cognitive extension of ourselves. They will become as intimate as wearables. Sensors will make cars more attentive to our desires, and robotics will make us more attuned to their requirements. On the road, the driver and car will operate as a physically and mentally unified man-machine hybrid. Driving will become both safer and more natural.

This is a future driven by automotive neuroscience rather than artificial intelligence. It will be achieved by applying breakthrough neuroscientific research to the engineering of everything the driver sees and touches, from the windshield to the seat to the steering wheel. And because many of the essential technologies are already available, facets of this future can be prototyped and experienced right now.

The world's first neuroscientific concept car, the Roadable Cortex will present five dramatic ways in which the driving experience may be augmented in next-generation passenger vehicles. The fully-operational automobile will provide an opportunity for the public to view and experience features that may soon be available, and offer a chance for engineers to gauge consumers' reactions in advance. More important from an artistic standpoint, the Roadable Cortex will present in tangible and fully roadable form a vision of future transportation distinct from driverless clichés. An original artwork conceived by

an experimental philosopher and shown in museums, the vehicle will provoke discussion about what we really want from technology – and what technology can become as it evolves into a manifestation of ourselves.

VEHICLE FEATURES

The Roadable Cortex will be built on the chassis of a conventional late model sedan, which will be enhanced with five speculative technologies creatively derived from recent neuroscientific research. Notable features will be as follows:

Cardiovascular Seatbelt (for Amplified Presence)

The sense of self originates deep within the body. Interoception, the perception of vital signs such as heartbeat, is the underlying mechanism of self-identification.¹ In order to make the driver feel fully present in the cockpit, and to fuse identification of the driver with the automobile, robotics in the seatbelt will sense and amplify the throbbing sensation of the driver's heart by gently pounding the chest at precisely the same beat.

Pulmonary Windshield (for Augmented Intelligence)

Like heartbeat, breathing is perceived through interoception. Laboratory experiments have shown that a subject will believe himself to be closer to a distant object if the object changes in luminosity at the exact rhythm of the subject's breathing – in effect eliciting an out-of-body experience.² The Roadable Cortex will take advantage of this phenomenon by manipulating the driver's perception of road features through the windshield. Coated with electroactive SPD,³ the windshield will subtly darken and lighten in time with the driver's breathing when the driver is headed in the optimal direction according to GPS computations of route and traffic information. As the driver veers off route, the tinting will fall out of sync with the lungs. Operating in tandem with the seatbelt – which will pound more vigorously as the destination is approached – the windshield will provide the driver with an augmented sense of direction by providing a guided out-of-body experience.

Kinesthetic Driver's Seat (for Emotional Enhancement)

Emotion is modulated by hormones. Two of the most important while driving are testosterone (which is associated with confidence) and cortisol (which correlates with stress level). Recent laboratory research shows that posture influences testosterone and cortisol production: an open pose hormonally increases the feeling of confidence, while stress increases when the body is closed.⁴ Optimal driving depends on the right balance of self-assurance and concern. The Roadable Cortex will keep the driver in the optimal zone by monitoring hormones in perspiration on the steering wheel and dynamically altering posture with robotics in the seat. The body will be subtly opened and closed to maintain a stable mood – which may be fine-tuned by sensing surrounding traffic and adjusting the driver to be more relaxed or more vigilant depending on road risks.

¹ See "Just a heartbeat away from one's body: interoceptive sensitivity predicts malleability of body-representations" by M Tsakiris et. al. *Proc Biol Sci.* 2011 Aug 22;278(1717):2470-6. doi: 10.1098/rspb.2010.2547. See also "Turning body and self inside out: visualized

² See "Breathing and sense of self: visuo-respiratory conflicts alter body self-consciousness" by D Adler et. al. *Respir Physiol Neurobiol.* 2014 Nov 1;203:68-74. doi: 10.1016/j.resp.2014.08.003.

³ For more information on SPD, see http://www.smartglassinternational.com/downloads/SPD_SmartGlass_Data.pdf Liquid Crystal is another smartglass technology that might be used instead.

⁴ See "Power posing: brief nonverbal displays affect neuroendocrine levels and risk tolerance" by DR Carney et.al. *Psychol Sci.* 2010 Oct;21(10):1363-8. doi: 10.1177/0956797610383437. See also "The ergonomics of dishonesty: the effect of incidental posture on stealing, cheating, and traffic violations" by AJ Yap et. al. *Psychol Sci.* 2013 Nov 1;24(11):2281-9. doi: 10.1177/0956797613492425.

Haptic Steering Wheel (for Extended Awareness)

When a tool is taken in hand, the brain considers it part of the body. The phenomenon, which depends on vision and the body's sense of its own position, has been found to be remarkably robust in laboratory experiments. Subjects wielding laser pointers have been shown to mentally incorporate light beams reaching as far as thirty meters away from where they're standing.⁵ Haptic steering will take advantage of the malleability of body schema, making the driver's brain integrate the entire vehicle as a physical extension of him- or herself. Robotics in the electric steering wheel will provide haptic feedback from the point-of-view of the car chassis, which will be additionally experienced by haptic manipulation of the feet through the electric gas and brake pedals. The illusion will be further enhanced by dashboard-mounted ultrahaptic actuators that will envelop the driver's arms and legs in a persistent haptic hologram.⁶ The driver will feel the curvature of the road and air pressure from passing vehicles. The car body will become a second skin.

Somatic Thermostat (for Integrated Wellbeing)

Belief in free will isn't all in the mind. Psychological experiments have shown that it's influenced by physical wellbeing. For instance, people's sense of their own free will diminishes when they're thirsty or tired.⁷ Inside the concept car, the thermostat will modulate the driver's sense of free will. The thermostat will be programmed to lower the driver's comfort level when his or her will is actually imperiled by low gas or engine trouble. It will also do so when the driver isn't navigating the car safely (since the consequences of poor driving can jeopardize free will permanently). Through climate control, the wellbeing of the driver will be harmonized with the wellbeing of the vehicle.

In the Roadable Cortex, all of the above technologies will be fully functional; the vehicle will be engineered for road testing by the media and the public. However the robotics and electronics will be exposed so that the innovations can be readily appreciated in a museum or on a showroom floor. In such hands-off conditions, car doors will be open and the mechanisms will be programmed to operate automatically. Viewers will see the seat robotics in motion and the windshield tint fluctuating, experiencing the car of the future vicariously.

⁵ See "Compressing perceived distance with remote tool-use: real, imagined, and remembered" by CC Davoli et. al. J Exp Psychol Hum Percept Perform. 2012 Feb;38(1):80-9. doi: 10.1037/a0024981.

⁶ See <http://ultrahaptics.com> for details on ultrahaptic technology.

⁷ See "Embodied free will beliefs: some effects of physical states on metaphysical opinions" by MR Ent et. al. Conscious Cogn. 2014 Jul;27:147-54. doi: 10.1016/j.concog.2014.05.001.

TENTATIVE DESIGN AND PRODUCTION TIMELINE

September 2015 - August 2018

Stage 1 (September-December 2015)

project planning and refinement in collaboration with Hyundai Ventures
agreement on three-year plan and budget

Stage 2 (January-March 2016)

conceptual development of vehicle in collaboration with Hyundai Ventures
production of preliminary computer renderings in collaboration with Hyundai engineers

Stage 3 (March-July 2016)

development of five new vehicle technologies with engineers
production of stand-alone functional prototypes by Hyundai

Stage 4 (July 2016)

joint presentation and demonstration at LACMA Art + Technology Lab (public event)

Stage 5 (July-September 2016)

testing and refinement of stand-alone functional prototypes by Hyundai
design of in-vehicle prototypes with engineers
refinement and finalization of computer renderings of vehicle with engineers

Stage 6 (September-November 2016)

development of functional prototypes inside working concept car by Hyundai

Stage 7 (November-December 2016)

testing and refinement of concept car in collaboration with engineers

Stage 8 (January-February 2017)

joint presentation and demonstration of concept car at LACMA Art + Technology Lab
presentation of concept car at Detroit Auto Show and CES by Hyundai Ventures
joint presentation of concept car to U.S. media (press conference)

Stage 9 (February 2017 - August 2018)

exhibition of concept car at major U.S. museums

Stage 10 (August 2018)

permanent installation of concept car at Hyundai's GAC automobile museum in Korea

ABOUT JONATHON KEATS

Acclaimed as a "poet of ideas" by *The New Yorker* and a "multimedia philosopher-prophet" by *The Atlantic*, Jonathon Keats is an experimental philosopher, artist, and writer based in San Francisco and Northern Italy. His conceptually-driven interdisciplinary projects explore all aspects of society through science and technology. In recent years, he has built a camera to take a continuous thousand-year-long exposure of the changing landscape at Arizona State University; opened a photosynthetic restaurant serving gourmet sunlight to plants at the Crocker Art Museum; exhibited extraterrestrial abstract artwork decoded from Arecibo Observatory radiotelescope data at the Judah L. Magnes Museum; and applied quantum mechanics to banking – coaxing money into a quantum superposition to be shared by everyone – at Rockefeller Center. He is the recipient of a 2015-16 Art + Technology Lab Grant from the Los Angeles County Museum of Art (LACMA), where he is applying neuroscience to fashion, and he is concurrently developing an epic work of technology-driven land art in collaboration with the Long Now Foundation and the Nevada Museum of Art. Exhibited internationally, Keats's projects have been documented by PBS, Reuters, and the BBC World Service, garnering favorable attention in periodicals ranging from *Science* to *Flash Art* to *The Economist*. His latest book, *Forged: Why Fakes Are the Great Art of Our Age*, was published last year by Oxford University Press, which will also publish his forthcoming book on the legacy of Buckminster Fuller in 2016. He is represented by Modernism Gallery in San Francisco and by Baang+Burne in New York.

Select Media Coverage of Previous Art Projects:

Multi-Project *SciArt in America* interview (2001-2014)

<http://read.uberflip.com/i/253207/30>

Multi-Project *Space.com* Gallery (2006-2012)

<http://www.space.com/14649-jonathon-keats-space-art-photos.html>

The Millennium Camera, Arizona State University / *Slate* (2015)

http://www.slate.com/articles/technology/future_tense/2015/03/experimental_philosopher_jonathon_keats_millennium_camera_experiment.html

The Millennium Camera, Amherst College / *Associate Press* (2015)

<http://bigstory.ap.org/article/c50dc46f3873460ea95872b2b0dfc315/picture-it-1000-year-exposure-showing-changing-earth>

Deep Time Photography / *The Atlantic* (2015)

<http://www.theatlantic.com/entertainment/archive/2015/06/future-library-century-camera-art/395675/>

The Century Camera Project / *Next City* (2014)

<http://nextcity.org/daily/entry/hidden-cameras-in-berlin-record-100-years-of-urban-development>

Microbial Associates / *The San Francisco Chronicle* (2014)

<http://www.sfgate.com/bayarea/article/Breaking-the-mold-S-F-artist-says-bacteria-make-5830567.php>

Spacetime Industries / *The Atlantic* (2013)

<http://www.theatlantic.com/entertainment/archive/2013/10/controlling-the-space-time-continuum-with-art/280354/>

The Quantum Bank / *Hyperallergic* (2013)

<http://hyperallergic.com/73297/what-happens-when-you-cross-banking-with-physics/>

The Epigenetic Cloning Agency / *Nature* (2012)

<http://blogs.nature.com/news/2012/10/epigenetics-inspires-philosophical-experiments.html>

The Microbial Academy of Sciences / *Wired* (2012)

<http://www.wired.com/underwire/2012/01/keats-microbial-academy/>

The Photosynthetic Restaurant / *The Wall Street Journal* (2011)

<http://blogs.wsj.com/ideas-market/2011/04/29/tree-huggers-put-your-love-to-the-test/>

The First Copernican Art Exposition / *Science* (2011)

<http://www.sciencemag.org/content/334/6054/295.summary>

Quantum Entanglements / *Leonardo* (2011)

http://www.mitpressjournals.org/doi/abs/10.1162/LEON_a_00640

The Local Air & Space Administration / *ArtInfo* (2010)

<http://www.blouinartinfo.com/news/story/278298/how-artist-jonathon-keats-tapped-moon-water-before-nasa>

Travel Documentaries for Plants / *The New Yorker* (2010)

http://www.newyorker.com/talk/2010/03/15/100315ta_talk_gopnik

Universes Unlimited / *New Scientist* (2008)

<http://www.newscientist.com/blogs/shortsharpscience/2008/10/the-makeyourownuniverse-kit.html>

The Atheon / *Wired* (2008)

<http://www.wired.com/wiredscience/2008/09/can-science-rep/>

OuijaVote / *Gizmodo* (2007)

<http://gizmodo.com/315167/ouijavote-2008-opens-door-to-paranormal-democracy-arguably-better-than-diebold>

Pornography for Plants / *Reuters* (2007)

<http://www.reuters.com/article/2007/09/07/us-plants-porn-idUSN0720247820070907>

AgriFolk Art / *Outside* (2007)

<http://www.outsideonline.com/outdoor-adventure/The-School-of-Sap.html>

The First Intergalactic Art Exposition / *The San Francisco Chronicle* (2006)

<http://www.sfgate.com/bayarea/article/BERKELEY-Art-and-Slinkies-reach-for-the-sky-2491895.php>

Speculations / *KALW Radio* (2006)

http://www.prx.org/pieces/15573-speculations-real-estate-meets-string-theory/floating_piece

The God Project / *KQED TV* (2004)

<http://www.kqed.org/arts/programs/spark/profile.jsp?essid=4504>

Brain Trust / *BBC World Service* (2003)

http://news.bbc.co.uk/2/hi/uk_news/magazine/3217423.stm

The Law of Identity / *Legal Affairs* (2002)

http://www.legalaffairs.org/issues/March-April-2003/scene_marapr03_slater.msp

More details on these projects and links to extensive media coverage are available on request.