PARK McARTHUR

It is difficult to refuse the fact that certain things in this exhibition are fundamentally sick. The materials alone-oily slabs of rubber, detailed instructions on how to fuse a human spine, a fabric medical restraint, and off-gassing foam monoliths-orient us toward illness and debility. Around these physical objects is Files, a multi-channel sound piece McArthur produced in collaboration with Alex Fleming. Files plays from speakers mounted to brick walls, filling the space with spoken fragments of text that recombine material pulled from a range of online sources, including robotics videos, instructions for the mounting and installation of rubber sockets and fixtures, descriptions of different kinds of care work and sex work, as well as recent reports investigating the living conditions and abuse of disabled people in state residential institutions and mentally ill people incarcerated in state prisons. These texts, read and recorded as part of Files, present a discordant body of statistics and reportage.

The composition of *Files* is organized by programmed Markov chains, mathematical systems that transition from one state to another. Markov chains are usually characterized as memoryless: The next state depends only on the current state and not on the sequence of events that preceded it. Markov chains are part of the structural math that runs our lives. They peddle search engines, gauge financial markets, and are used by actuaries who manage the risk of health and life insurance policies. If we view information itself as a body, as a living process, then we might be led to ask: What is a life? When does it begin and end? Why, as the theoretician Donna Haraway once asked, should a body end at the skin? Where does a body—and its aliveness—begin and end?¹ And can we intimate the continuity between a body or bodies (meaning the body's experience of itself, as if from inside) and those various objects, systems, and controls that the body is not?

In a society that has historically valued the productive capacity of humans, the repercussions for those who are disabled and dependent have been devastating. This system of valuation has resulted in enforced sterilization, euthanasia, institutionalization-ultimately, governmental control of bodies out of line with the promises of our recumbent democratic state.² As an inquiry into social issues, this exhibition directs us away from affirmation, and toward a place less morally self-assured, asking how we value human life, and more expressly, how human life might be regarded in relation to something other than its potential use value.

Park McArthur was born in 1984 in North Carolina. She now lives in New York. Alex Fleming was born in Michigan in 1984. He now lives in New York.

¹ This thought is paraphrased from Jasbir K. Puar, "Prognosis time: Towards a geopolitics of affect, debility and capacity." In *Women & Performance: a journal of feminist theory.* Vol. 19, No. 2. (2009): 161–172.

² See Marta Russell, *Beyond Ramps: Disability at the End of the Social Contract*. Monroe, ME: Common Courage Press, 1998.

Park McArthur and Alex Fleming

The following is a transcript of the sound files programmed to run in this piece:

Toyota Care Support Robots for Nursing and Healthcare

Toyota has developed robots for care support in response to society's aging demographics. The robots have been co-developed with Fujita Health University. They utilize advanced technologies from Toyota, including motor control technology developed for cars, as well as walking control and sensor technology used in bipedal robots. The brace and backpack each weigh 3.5 kilograms, with the backpack containing a battery and controller. When a commercial version is released, the weight of the backpack will be halved so this part will fit into a waist pouch. The automatic walking assist robot has also been used in tests to help with walking practice. By changing the support force as the patient recovers, this system can help people to practice walking naturally from the start. In addition Toyota is developing a balance training assist robot, using technology for personal mobility and a robot that helps move people out of a bed and into a wheelchair. Toyota aims to release all these robots from 2013 onward. Tests are currently underway. primarily on the safety aspects.

Towards an Assistive Robot that Autonomously Performs Bedbaths for Patient Hygiene

Capture laser range data and camera image User-selection interface Cleaning the upper arm Cleaning the forearm Cleaning the thigh Cleaning the leg

Service robots in nursing homes: CARE-O-BOT 3 and CASERO

Introducing Care-O-bot and CASERO, service robots on a quest visit to Park Heimberg in Stuttgart Their mission is part of the DE Care project to help the staff with their work. "He's certainly been a great help to us in our day to day work, you know, transporting things, taking the laundry to the cellar and carrying crates of mineral water. He's definitely helped us there, because it saves us time. He can do all those things, and we can spend more time with the residents." We are talking about CASERO, his specialty is transporting things independently. Once Silke has loaded the laundry into the container, she simply needs to press a few buttons on the display, and send the service robot on his way. He then picks up the laundry and takes it to the cellar for washing. At night, when there's nothing that needs transporting, the service robot turns to his second job, that of night watchman patrolling the corridors along a fixed route. A built-in camera allows members of staff to follow him on his travels. Should CASERO come across anything unusual, he soon raises the alarm. The member of staff has also brought the first aid case. "He's a big help, especially to me because I also do night watch in Park Heimberg. He enables me to see that, at least in the corridors, everything is OK, which is really useful. And he also brings me the first aid case. He's a big help." [German] A different robot a different task Care-O-bot makes direct contact with the residents in Park Heimberg. He can even recognize faces. A second quest robot can independently pour out drinks and then hand them out to residents. What's special about him is that he keeps a record of who's had something to drink and how often. Members of staff can examine the record at any time. "We're definitely under great pressure to make sure the residents get enough to drink. That's a big challenge for the staff." And there's

something else Care-O-bot can do: Memory is just one of the popular games on offer from Care-O-bot on his guest visit to Park Heimberg. And to finish, there's another special ability the service robot can show off. [singing]

Dreamer Meka-HCRL Sociable Head

Yeah they change colors there. Super cute. Incredible, yeah. Haha. They're really nice. So we'll do the demo. That's a controller that's running right now. It controls all 7 docks of the main head structure. Essentially, it takes the right eye position and if it's off...if it's looking to the right it guides the head right, if it's looking up it guides the head up. And then the left eye is slaved off of that. So if you have like a visual target and you want to like have it track it thn the head can kind of follow it around. A coupled tilt, and then an independent pan. It's definitely pretty hard to do the stereo with active eves. But you can do some rough versions if you want a rough... The eyes can actually go pretty quick. Right now, with the demos I haven't even slowed down, but they're designed to do sort of a human speed, and then also do a nice smooth pursuit. We put a bunch of work into having a very low friction, high speed, large range... The eyelids here spring open. There's just a little cable that pulls them shut. So all of the joints have the 14-bit absolute encoder feedback, and uh, so there's no start up calibration. Yeah, I think we've figured out the sort of the across the room the resolution on the eveball. You can still...it's about that much.

Any server? And are there are two ways of communicating with them? One is through vertical motion, the other is through circling? There are a number of ways to communicate. So you've got the server which is running C++ real time code, and we expose the shared memory interface for you guys which directly pipes in data into the R-key eye controllers...

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Nina Simone/Montreux Jazz Festival

Feelings, nothing more than feelings. Feelings, nothing more than feelings. Feelings of love, you know that. As a robot gets herself together and we do it and we get to the middle where we have forgotten our feelings of love, you will help me, huh. Teardrops, falling down my face. Trying to forget all my feelings of love. Goddamn. I mean, you know, what a shame to have to write a song like that. Feelings... I'm not making fun of the man. I do not believe the conditions that produced a situation that demanded a song like that. Well, come on. clap. Dammit, what's wrong with you. For my life I feel it. I wish I'd never seen, it can't possibly come again. Feelings, come on, whoa oh oh feelings, whoa oh oh feelings. Feelings, feelings that I never met you, feelings that I never even saw you. In my heart... to forget my feelings of love. Feelings, I swear all my life I feel it. So long, I wish I never lived this long. I hope this feeling never comes again. Feelings, feelings like I never lost you, and feelings like I never really had you here in my arms. Come on, let's hear the climax. Feelings, you know this song, come on, oh oh oh feelings, whoa oh oh feelings, again in my arms. Feelings, oh lord feelings, I'm gonna let you go so soon, so embarrassingly soft, so let's please to the chorus. Feelings oh oh oh feelings, oh oh oh feelings, again in my arms. Feed me, feed me, feed me. Here in my heart, you'll always stay, here in my heart, no matter what the words may say, you will stay here in my heart. No matter what the day, you will stay here in my heart, no matter what they say, no matter what they compose or do, no matter what the drugs may do or songs may do, what people they do or machines will do to you. I will always have my feelings, nothing can be stronger 'cause I know that that is all that there is... For you. Good night!

Anterior Cervical Decompression and Fusion (ACDF) _ Live

Hello, this Dr. Cornman. We're going to go through a video and animation of an Anterior Cervical Decompression and Fusion at C67. Here you a side view X-ray, a lateral X-ray, where there is an angulation, and here you see the MRI with the herniation at the base of the spine. This is a normal level transversely. And the next picture will be the herniated disk where you see it's compressing both the cord as well as the two holes the nerves exit. We first start with a small transverse incision at the side of the neck, and we dissect directly onto the anterior part of the neck. We put in these two small distraction pins called caspar pins that allow us to pull the vertebra apart to its normal height. Typically these vertebrae have collapsed at least halfway This is a picture of what the annulus itself looks like in a live video. You can see this little pinfield going into the tear. That tear obviously should be attached to that vertebra but this patient has torn off their annulus. We then take of the anterior aspect of the annulus. This video depicts how it's done in a simple manner, and we'll see how we do it using a typical leven blade. Here's the little tiny scalpel, and it goes in and removes this annulus. The nucleus is missing in this patient. It had actually dissolved away and the rest of it had gone to the back of the neck, compressing the nerves. Here we see a small tool removing this portion of the annulus. We then remove the spurs on the front portion of the neck so we can get the two vertebrae parallel and have a good spot to dock our plate. In addition it allows us to know the depth of the graft we need. Here we see a burr taking of these spurs. Once we have the spurs in the front removed we then need to remove the spurs that occur within the disk itself and we see this little Dremel type device, the burr. removing that bone. And here we see a live version of the same thing, where the burr actually takes the spur off the bone. We need to have the endplates parallel, because the endplates in a typical cervical vertebra have some curve to them. And in order to be accepting of a good graft we have to take these endplates down. We then curette the cartilage that sits on each plate. Here we see the curette taking off this cartilage. This cartilage itself prevents boney fusion and must be thoroughly removed to prepare the end plates to accept the bone graft. In addition, the cartilage hides the bone spurs that project into the back of the canal. And we want to have those removed, so here we see the removal of that cartilage using a pituitary. We then work on the back spurs that are projecting into the canal and we use a small tool called a carrison as well as a curette. The joints are the areas of the bone that create the spurs that compress the nerves. And here you see them removed with a carrison. The carrison will remove these and make more room for the nerve, which you can see in the background there. You can also remove the spurs with a highspeed burr as you see here. This thins down those

spurs enough that you can easily pull them into the disk space using a small up-angle curette. Also we see the end-plate being parallelized. Here's the finished product so to speak. We irrigate to make sure we wash out any debris, and then we check for the height of the graft that is necessary. Then we'll use this little device you'll see being pushed in there. It expands the vertebra; it's not perfectly ready vet, it needs a little more trim, and a little more parallelization, and then we put a spacer in And you'll see the spacer fits guite nicely. We know we're ready for the graft. We prepare the graft. It could be an autograft from the patient themselves, or an allograft. In this case we will use an autograft. This is a device that measures the depth of the hole. And then what we'll do is take the graft as depicted in this animation and place it between the two vertebrae. Here we see a graft with a little purple on it. I actually dye the front of the graft purple to keep a good spot on it. We place it within the disk space. That was the initial impaction. Then we do our final impaction. This is how a graft should look. It should be perfectly inter-digitated between the two vertebrae and fit quiet nicely, as you see, We then take a small titanium plate and that plate will be put on the front to cover this graft to stabilize it and allow the patient to get out of a collar much more quickly than normally. These green screws that you see look to be quite big but they're actually small. There's significant magnification from the microscope that makes these screws look large than they really are. Once the screws are in place, then we tighten down these wedge screws, which attaches the screws to the plate itself, and that's that cross-hatch screw you see in the center. We tighten all those screws to swatch them down. That is the post-operative X-ray and a front-to-back view and a side view, noting the position of the plate and the incorporation of the graft. Thank you for your attention

Meet Ava, the Health Care Robot

Our next big step is Ava. This is a platform that has multiple applications in the home. Ava is another product for consumers in their homes. What we saw was a real need for a robot that could help people live independently in their homes. Not just cleaning the floors, but bringing services into the home that people might need to stay healthy, for example.

Here we have Ava with the face of a doctor. And in reality this could be more than a face, this could be an actual doctor using a tablet far away giving me medical advice.

Why do you think there is a need right now in the market for products such as Ava?

The number of people over the age of 65 is increasing radically. Over the next twelve or fifteen years the number of people is actually going to double. And this is putting a huge, huge burden on society because it's expensive for someone to go into assisted living. We need a solution And on top of that the elders don't want to go into assisted living in general; they would much rather live independently at home. So the desire and the economics are right here in robotic technology making it possible to safely stay in your home.

Can you give us a sense of what the price point's aoina to be?

Well, in order for this to succeed in the home, it's going to need to be in the low single-digit thousanddollar type of range or below.

Rikers Island Struggles With a Surge in Violence and Mental Illness

About 40 percent of Rikers Island inmates have a diagnosed mental illness, the New York Correction Department says. The proportion has doubled in responsible for creating further disorder.

In this environment, mentally ill inmates are particularly vulnerable, experts say. The proportion of inmates with a diagnosed mental illness has arown to 40 percent, from 20 percent, over the last eight years, according to the Correction Department. These inmates are responsible for about two-thirds of infractions at city jails, the department said

The monotony, the isolation and the aggression of officers and inmates can worsen mental illness. causing inmates to lash out, said Dr. Bandy X. Lee, a professor of psychiatry at Yale University who specializes in violence at prisons and jails.

"Right now, jails and prisons are grappling with a population they are not prepared to deal with," Dr. Lee said. "It is not so much a fault on the part of the correction system. They are simply not equipped and have not been able to adjust guickly enough."

Inmates who receive mental health treatment were five times as likely to require an "injury visit" to a iail clinic after a violent altercation with officers or inmates, according to a 2012 study by the city's health department. They also stay in jail much longer than those not treated for a mental illness and have higher rates of recidivism.

But while the most seriously mentally ill inmates now receive some therapy, isolation remains a widespread punitive tool, oversight officials said.

Solitary confinement and some therapeutic units are rife with abuse and neglect, city officials and inmate advocates said. They described walls that are covered with feces and body fluids, and inmates who scream incessantly and throw themselves into walls and doors. Inmates are housed in the units 22 to 24 hours a day, while inmates in the jails can watch television, work out and interact with others.

The addition of video surveillance in many sections of the jail has made officers and inmates think twice about resorting to force, officials said.

State Faults Care for the Disabled

ALBANY-Nearly 300,000 disabled and mentally ill New Yorkers face a "needless risk of harm" because of conflicting regulations, a lack of oversight and even disagreements over what constitutes abuse, according to a draft state report obtained by The New York Times.

In 2010, the number of abuse accusations at large institutions overseen by the State Office for People With Developmental Disabilities outnumbered the beds in those facilities-a sign of trouble in buildings where many of the state's most vulnerable residents are housed, and where the state has repeatedly had trouble with abusive employees and unexplained injuries and deaths among residents, according to the report.

The report was commissioned by Gov. Andrew M. Cuomo in response to a Times investigation last vear into problems of abuse, neglect and fraud in state homes and institutions for the developmentally disabled. A draft of the report began circulating in October, but has not yet been released to the public: people frustrated by the delay separately provided to The Times an executive summary and a bound copy drafted in December.

eight years. In particular, correction officers have struggled with an increasing concentration of mentally ill inmates who experts say often respond defiantly or erratically to the harsh zero-tolerance disciplinary measures successfully employed in the past. While conditions today are far from the nearanarchy of 20 years ago, the tools used to bring that era of violence under control may now be partly

Problems were found at all six state agencies that provide residential service to children and adults with an array of disabilities, mental illnesses or other issues that qualify them to receive specialized care by the state

According to the report, a regulatory maze has complicated and in some cases constrained the state's response to claims of abuse. At one agency the police are summoned if "there is reason to believe that a crime has been committed," while another agency does so only if a potential felony has been committed. A third agency turns to law enforcement only if a local district attorney has "indicated a prior interest," the report said.

The Cuomo administration has expressed concern about issues identified in The Times and addressed by the report. Over the past year, the governor has forced the resignations of the commissioner of the Office for People With Developmental Disabilities and the top official at the State Commission on Quality of Care and Advocacy for Persons With Disabilities and he has moved to fire 130 employees involved in accusations of serious episodes of abuse or neglect.

The administration has also taken a number of steps to shore up oversight and care of the developmentally disabled, putting in place new rules for drug testing and criminal background checks of staff members who work with the vulnerable.

"The draft report was the subject of a cabinet and press briefing in October, and we are currently working on a transformational reform plan based on the report that will be announced soon," said Richard Bamberger, the governor's communications director

But some advocates and lawmakers have been frustrated with what they see as the slow pace of progress. Michael Carey, an advocate for the developmentally disabled whose son with autism died in state care in 2007, said he was concerned that the governor was waiting to address the issue until after legislative budget negotiations, which could make it more difficult to find money for new programs.

"It's gross negligence that that report has not come out, and it's beyond frustrating," Mr. Carey said, adding, "The reforms to date are baby steps towards monster problems." And Senator Roy J. McDonald, the chairman of the State Senate's mental health committee, sent a letter this month to the governor urging him to turn over the report "so that we can begin working towards enacting long overdue protections and safeguards."

The Times last year identified numerous problems with the state's care for the developmentally disabled: only 5 percent of abuse accusations were forwarded to law enforcement, and employees who physically or sexually abused the disabled were often transferred among group homes instead of being fired.

Ten percent of deaths of the developmentally disabled in state care were listed in a state database as having occurring from unknown causes, suggesting widespread failures in efforts to determine why people die in state care

At the same time, executives at some nonprofit organizations hired by the state to care for the disabled have been earning seven-figure annual compensation packages and taking a wide range of Medicaid-financed perks for themselves and their friends and families

The state report, a 105-page document called "The Measure of a Society: Protection of Vulnerable Persons in Residential Facilities Against Abuse and Neglect," critiques the practices at six state agencies that oversee residential programs for vulnerable populations, at an annual cost of \$17.9 billion. The report's principal author was Clarence Sundram, who was hired by Mr. Cuomo a year ago as a special adviser on vulnerable people. Mr. Sundram had been named by Gov. Hugh L. Carey to lead the Commission on Quality of Care, and he ran the commission for two decades until he left amid a disagreement with the administration of Gov. George E. Pataki.

In his report, Mr. Sundram found inconsistent data about accusations of abuse and neglect at state-run facilities. Some agencies train their investigators; others do not. Evidentiary standards vary. And definitions of abuse or neglect vary depending upon which agency has oversight.

The report found that residential schools run by the Education Department did not track abuse claims, while the State Health Department had "no reliable data" for accusations at its homes for mentally ill adults. At the large institutions overseen by the Office for People With Developmental Disabilities, the report found 119.68 abuse claims for every 100 beds.

The homes monitored by the Health Department have been a particular concern for a decade, since a series of articles in The Times in 2002 called attention to abuse there. Nonetheless, the report found, the department has few standards for investigating its homes: the agency's regulations "do not directly address an operator's responsibility to investigate incidents or allegations of abuse," the report concluded.

The Office of Children and Family Services also has few standards to determine when and how to investigate abuse accusations at some facilities. And the Education Department does little to oversee its programs for the disabled, which include two residential schools—one for the deaf and one for the blind—with a total of 200 beds, as well as educational programs at nonprofit residential schools serving 2,500 students.

Official MDS Robot Video: First Test of Expressive Ability

Hello. My name is Nexi, and I'm an MDS Robot. MDS stands for Mobile Dexterous Social. Mobile, because I can move around. Dexterous, because I can use my hands to touch things or even pick them up. Social, because I can communicate in many of the ways people do. I can tell you that I'm sad, mad, confused, excited, or even bored just by moving my face. I hope you can see that I am very happy to have met you. Thank you for visiting me. I hope to see you again soon.

Debussy & Syrinx

Treasure Island Media Viral Loads

Hot Girl Talking JO

Official MDS Robot Video - First Test of Expressive Ability

Paro Robotic Seal from Japan

Blonde sexy girs Jerk OFF Instruction Cute Babe Dirty Talking

[IREX 2011] Yaskawa SmartPal 7 with Kinect

Distant Attack Hit

Sexy Girl in Wheel Chair

172908__candlegravity__electro-tom-withtracer-sub-bass 194281__datwilightz__real-subbass

214039__infinitelaughter__low-bass-throb Assistive Robot that Autonomously

Performs Bed Baths for Patient Hygiene

156294_dayvonjersen_coolsubbass5.wav

233752__szpury__subbass-hit-001.wav

DistantAttack_Hit.2.wav

156502__unfa__wild-stereo-sub.wav

144114_avakas_dramatic-short-bass.wav

198285__unfa__party-behind-the-wall-bassmusical-noises.flac

161003_cam-dudes_mp7-airsoft.wav

166121_adam-n_bass-tonal.wav

184282__unfa_g-sine-natural-distortion-loop.wav

222676__unfa__power-buzz-sfx-loop.flac

222676__unfa__power-buzz-sfx-loop.wav

233800__corsica-s__low-thump.wav

72156__zilverton__subkickbeat2.wav

7718__schluppipuppie__schmatzschmatzproc.aif

unfa__power-buzz-sfx-loop_01.aif

772__vitriolix__kick-wump.wav

9407__xwitnessx__13-a.wav

19917__freqman__lf-bass-2.wav

83550__zgump__sub-mania-06.wav

85085_s-tek_s-tek-waldorf-attack-sub-1.wav

147875__zesoundresearchinc__ depthbomb-02.aiff

154604_kasa90_subbass-wobble.wav

240858__panikko__hit-with-echo.wav

Polyurethane Foam

82 x 49 x 24 in. (peach) 82 x 49 x 32 in. (blue)

How to get a wheelchair over sand

Park McArthur digital C-print 8.5 x 11 in. Edition 3/5 + II AP 2013

Untitled

Albert Oehlen mixed media on paper 8.5 x 11 in. 1979

This painting has been acquired by an out-ofstate collector and is on loan to Park McArthur with the stipulation that it is viewable to the public for 90 days. This display, according to state tax regulations, is regarded as a "first use" of the item and waives a use tax, which is often incurred when a buyer ships an out-of-state purchase home. This display results in a tax-free transaction for the collector.

> "Oh. It's like duty free." "Yeah. It's like duty free."

Posey Restraint

48 x 35 ¼ in.

For patients assessed to be in extreme danger of injury to themselves or others Helps control combative patients Body is covered by durable nylon mesh Padded cuffs at upper arms, wrists, and ankles hold limbs in place Secures to bedspring frame with D-ring fasteners and quick-release buckles One size fits all standard hospital beds Machine washable

Black Molded Bumpers

rubber 10 x 12 in.

These molded bumpers provide durable, economical protection for your loading dock, contribute to the efficient transfer of goods and materials, and are built to endure years of abusive pounding.

PARK McARTHUR

September 5–October 19

The algorithmic concept for *Files* was produced by Anthony Tran. Momo Ishiguro contributed sound design and production. Matt Carlson engineered the sound, and the recorded voices were spoken by Tom Blood and Vanessa Place.

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