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Ultrasonic dreams of aclinical renderings

Possible Bodies

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When specific intra-active technologies of ultrasound and echography violently rendered real bodies, they wondered about the see-through space-times that were left in the dark. The crystals. They read, listened and gossiped with awkwardness, intensity and urgency. Lively and clumsily smoking cigarettes, they cried as coyotes: The crisis of presence that emerged with the computational turn was shaped by the technocolonialism of turbocapitalism! Through vibrations of feminist technoscience, through friends and lovers, they heard how sonographic images produced life and mattered "real bodies". Convoked from the dark inner space-times of the earth, the flesh, and the cosmos, particular aclinical renderings evidence that "real bodies" do not exist before being separated, cut and isolated. Listen: there is a shaking surface, a cosmological inventory, hot breath in the ear. DIWO, recreational, abstract, referential and quantifying sonic practices are already profanating the image-life industrial continuum. Ultrasound is no longer (or never was) the exclusive realm of technocrats or medical experts.

These are your new devices, dim and glossy. In this partial imaginary, you'll deep listen to their non-ocularity, following entanglements with images and imaginations; all the way into ultrasonic cosmo-dreaming, where poetic renderings and sonographies start to (re)generate (just) social imaginations. Let's collectively resonate against technologies of ultrasound and echography and bet on practices that open up relational, semiotic-material, non-individualistic and non-anthropocentric notions of presence, that bring in transfeminist queer futures.

Fig. 1: 'BIDE', Diffusion Tensor Imaging, Fluid Attenuation Inversion Recovery, Gradient, K.I.S.S., R.A.G.E., T1, T2., recorded by Williams, K. at the Radiology Lab at the University of Iowa Hospital, 2010. Collated by Possible Bodies, 2017.
http://www.cornwarning.com/xfer/MRI-Sounds/ (http://www.cornwarning.com/xfer/MRI-Sounds/)

1. Evening

The machine began to rotate slowly. She swallowed the paramagnetic contrast agent in one go, preparing her vessels to render themselves later. When the metallic taste faded, she could smell the ancient chestnut trees blossom nearby. Her crystal studded belt was stored with the pyrosome pendant in a strongbox outside the perimeter and the radio-pharmaceutical body-paint shimmered, still wet. Across from her, the others followed and struck an A-pose. Judging by the roar of the crowd that was barely audible from inside, tonight they would finally make a living.

Following their post-certification dreams, they ran their own techno-ecological show in excess of vision. The machine was rigged together from a salvaged General Electric Discovery MR750w and a Philips Ingenia 3.0T. For effect, several pieces from a scanner built in the seventies by the Electric and Musical Industries conglomerate had been added. This aclinical setup had cost virtually a million but when dismantled, the hardware fit on a standard trailer and the open sourced software did not take up more than two solid-state drives. The certificates doubled as a license for speculative imaging and now their only worry was how to pay for the astronomic electricity bills without starting a forest fire.

The lights dimmed and the noise grew louder until all solids vibrated: bones, glass, teeth, screws, violently rattling. They squeezed each other tightly as the machine picked up pace, centrifugal forces flattened their bodies against the curved superconductive screen behind. The ground dropped away and an electromagnetic coil lit up in the centre.

Now they all moved together, more-than-human components and machines, experiencing an odd sensation of weightlessness and heaviness at the same time. Limbs stuck to the wall, atoms bristled. Bodies first lost their orientation and then their boundaries, melting into the fast turning tube. Radiating beams fanned out from the middle, slicing through matter and radically transforming it with increasing intensity as the strength of circlusion decreased. The sound of the motors became deafening when the symmetric potential excited the rotating matter, pulling the cross-sectional spin-spin couples towards the central coil, forcing atomic spectra to emit their hyperfine structure. Once all fluids were accounted for, the volumes could be discretely

reduced to graphs and the projections added up. Attenuating varying levels of opacity, a white helix formed in the middle which slowly gathered intensity and contrast. Faster and faster the machine spinned until the cylindric screen lit up in the dark.

When the shadowgraphs appeared, the crowd howled as coyotes. Laminograms of differently densed matters rendered onto and through each other, projecting iteratively reconstructed insides onto the outer surface area. Collarbones entangled with vascular systems. Colons encircled spinal chords and a caudal fin, a pair of salivary glands vibrated with a purring larynx at a frequency of 25 to 150 Hertz. Brain activity sparked cerebral hemispheres, creating free-floating colonial tunicates of pulmonary arteries mingling with those of lower legs.

The math was breathtaking. Volumetric figures pulsated back and forth between two to three dimensions, transforming images into accidented surfaces and surfaces into ghostly images. There were mountain areas divided by sharp ridges, and watersheds preventing the draining of enclosed reservoirs. Methane leaked out of the old wells below and caused tiny explosions each time an image hit the surface. Calculating the distance between the edges of those catchment basins, the exponential boundaries between objects computed on the fly. There were dazzling colors as the sinographs peaked and the cubes marched. Whirling polygonal meshes exploded into a cloud of voxels before resurfacing as new nauseating contours, trapped in the vapours of the display. The continuing presence of the leftover, remnant of the former plutonium plant included potentially anything that had escaped the nature refuge.

2. Night studies

> Hey more-than-human components and machines, how are you?

> Let’s meet every night at the school party! We will silently split up and follow our ears.

> From now on, the learning happens at that precise moment when the co-participating spectrum produces a kind of blue that emerges up to 90 feet (30 m) in clear water. How will that sound?

> At night we persistently learn to sense the emitted reflected radiation remotely, as a tactic for profanating the image-life industrial continuum.

> We will gather to body image geological structures, heat differences in water currents. We’ll also otherwise embody others, and start fires – a significant activity

these days, you know.

> Let's make sure to reserve our electric sockets, before the curricula sediments. Some of us might highlight the urge for involving many more not-only-human companions, just like ourselves.

> Whoops! Over there others claim that all of this is happening precisely thanks to how non-supervision has already functioned quite accurately for eons; everybody will perhaps nod and we will start computing together.

> Key to our program is that the n-dimensionality of unsupervised machine learning radicalizes the project to the nth power.

> Each learning machine decrypts a split of the teaching fee, a fraction of the full amount that we spend on whatever desires, any software fantasy or whatever we want. Or cigarettes.

> The one condition will be that we commit to talk about what to do with the tokens, and how to calculate the coins. In our meetings this is such a frequent consensual mode. At other times, glossy dissent might take place.

This is how it goes:

At first we are buried and cemented in, and we can not get through. But then a flower breaks through the asphalt and the old regime of waves is finally over. A radical symmetry of processing agencies materializes. There is no evaluation any more: this is the take of the spectrum. Despite the cost of electricity and the heat from the rapid fires, now we just can't get enough.

The four dimensions of our learning program are: depth (z), height (y), width (x) and time (t). Although some have argued for the dimension of affect (a), it is settled this is always already present here or, to put it differently, affective dimension is always-already intersectional. The program is open and rigorous:

1. z) For deep structures of either objectification or subjectification, or both, or third parts, in z they train 'profound imaging'. We learn to estimate our present density without classifying it.
2. y) The principle of the inverse problem: 'While the object or phenomenon of interest (the state) may not be directly measured, there exists some other variable that can be detected and measured (the observation) which may be related to the object of interest through a

calculation'. Exercising this problem can lead to an inversion into a stateless level. This is technically understood as 'low profiling'.

3. x) Crystalogy it is. Gymnastic practice for the expansion of chosen prismatic geometric splendours.
4. t) Frequency. This module goes into the ontologies of ongoingness. In-determinate waving. An intensive training to not be always available.

The four dimensions are rendered through continuous intra-actions with various devices and techniques. Machinic learners are supposed to experiment with and be experimented on include (but are not limited to): computer tomography, magnetic resonance imaging and ultra-sound. While the frequency is mandatory, techniques, physicians, bodies are requested to certify each other intra-actively.

The schedule is almost full. Mid-red produces the worldling of vegetation, soil moisture content and, in some cases, forest phenomena. A heavy piezoelectric glow emits from the zone where sensitive detectors are placed. They are humming, tuning with frequent errors. Neither the production nor the interpretation of ultrasound images are simple matter; mis-diagnosing mis-readings involves highly specialized forms of knowledge.

The party is going on. 'The spectrum is no longer (or never was) the exclusive realm of technocrats or medical experts', says a banner on the wall. That bunch of new wave spectrometers, speedy spectrophotometers, cats, or dark industrial spectral analyzers is shaking and hot. Turning around into something else. Our in-determinate ontologies are here to stay … or maybe not. With care, curiosity and passion, dissonant matters are all being made present. There is no discriminatory weight, but for sure there are mutual exclusions that need to be accounted for. Here subaltern scopes are critical and (still) celebrated. We are considered to be rich, exuberant and glossy in our fierce so-called-precariousness. From now on, language will need to inflate and mutate to fit the hyperspectral sensing, reading lists are not printed here. Until we reach the no-mattering-morning, we still have many nights to spend responsibly, living ourselves collectively in an exuberant way. A shy crew in an immanent shiny excess. Hell yeah.

When the light changes again, we finally finish. It works as a signal to shoot. We are exhausted but once propagated, our unlearned signals keep training on their own: unsupervising others, reversing geometries, undetermining yet-to-know subject-object mining. Our dreaming vigilance is the same at 9 am as at 2 am.

From now on, hyperspectral imaging takes advantage of the spatial relationships among the different spectra in this specific neighbourhood of blurry limits. It is placed in practice to generate more elaborate misreadings of spectral-spatial accuracy models

for the subsequent segmentation and classification of the image (otherwise understood as imagination). Sheer volume.

Check out that very corner, how it shows its complex composition. The low frequency but high-res flickering. Filled with noisy false colours.

Check out that roof over there, its densities deserve to be seen. Those sexy hyperspectral are being rendered continuously. Let's follow them all the way into ultrasonic cosmo-dreaming.

Here-now. It is finally the moment of the take of the means for themselves. Every one is here. The whole spectrum is present, and making itself present.

3. Day 9

Certified, the night studies programmers lay as still as they could. With their hands flat on the damp soil, bodies a faint outline along the edge of the drill site, they prepared for the ninth day computed tomography earth scan. At the night studies they assumed they were now activists. She was still clutching an instruction leaflet that read "image wisely programme – sign on in advance to an adventure that will leave none of the terms we normally use as they were". Under the dusk light the recently rigged up solar panels shimmered against the device mirrors. Some of them were soldering connections over the soil with their portable irons, connecting the scanners across the earth's surface to the super computer user. In the reflection of her screen, she could see across the crowd a tangle of wires trailing out to fault lines, and as they draped these wires over their bodies in preparation, a long high pitched drone started to sound – as if a balloon was letting out air. In the distance, the dogs started barking a scene of wilding activities, they had learned about the possibility of this during training. The devices had begun. Infecting the entire structure as a whole. An electric field desiring a field born of charged yearnings. Cell death.

Earth bodies no longer accepting of the role assigned to them were beginning to emerge from the orbiting electrons, a few days and night had past but they seem to have lost count and felt somewhere in between, apart from when the speaker sounded to the Unix time-stamp announcing the day, hour, minute and second of the slice. Dark regions began hitting the photographic film fastened on the back of an old protest banner. The banners were propped up behind them, dark regions outside of expertise. These dark regions were now infected by a different purpose. She shivered, her fur

bristled and a layer of cold fell over the crowd. Someone smoking a cigarette draped a leather jacket over her shoulders. It smelled like cattle, tannin and fashion magazine cologne. As they turned, and rotated, an earth-body, they listened into photons, bursting with innumerable imaginings of what might yet(have) be(en). Sh listened carefully, concentrating for rumors she had not heard before. Densities she had not experienced. Stories set into motion the moment they spill. Addressing intensities.

It was the ninth day of the scan and their bodies began to understand what their ears could not. The difference between a dream and a nightmare – kinetic energy, a net positive electric charge, material wanderings/wonderings began to burst through the earth's surface, sending rays through them. They had discussed this possibility at the training camp. Three dimensional patterns began to divide the absorption of the earth beneath them. A diagnostic system. Water, strata, bone, skin, began to absorb the rays at differing rates. X-rays were traveling outward in some general direction hitting atoms – a quivering electric field. Together they were rendering fractures, internal structures of earth bodies. here [some math/software here]? Layering slices on top of each other building a three dimensional image. Tissues, microbes, minerals, systems superimposed on top of one another – examining the tomographic details, structures and harms of fossil fuel capitalism of the past. Beyond any hope of a recuperation but instead searching for the refusions of the mineralised past.

In this picture the voice over the tannoy exclaimed 'sacramental plurality'. The super computer user was shifting forming an image of the cross section of the body read on the salvaged screen. Data on top of one another to form the entire super user organism. As the machine body rotated, electrons continued to be produced. Electrons colliding with atoms, transmitting through the entire body the electron sources. A pleasuring intensity of measurements at all possible partial angles. They were awash with a thickness, a plurality of experiences occurring simultaneously – like a person walking by. Intensities began to break up, the different transition rates, and a voice started to sound numbers. As the final time-stamp was called, the gnu begun to gather on the edges of the drill site, occasionally drinking from the run off pools, with their blunt muzzles and waiting for the signal.

It felt like days before the algorithmic processes wound down, for the machine to slow down and the gravitational pull to get a hold again. Slowly intensities were reduced and attenuated. Voxels of bone and mineral started quivering as they were numbered. MR750w. Gradually restricting the handful of variables, the ground came back up and one by one the bodies slid down from the walls that had heated up under the strain of intensive calculations. The high pitched drone stopped sounding and the usher began to

take down the barriers. They blinked at each other across the dim radius, faintly glowing, still resonating.

4. Certification

The Extended TransFeminist Rendering Program exists to take care of the production, reproduction and interpretation of DIWO scanners and scanning practices within the field of a-clinical imaging such as magnetic resonance (MR), UltraSound (US) and Computer Tomography (CT). Organized around autonomous, ecologically sustainable municipalities it benefits the scanning equipment themselves, as well as the local amateur operators who interact with a-clinical renderings and speculations. For the unsupervised professionals, certification provides possibilities, Optical Character Recognition, the potential for machine recruitment, increased learning power and electricity tokens. For the programme participants, prefigurative organizing certification for MR, US and CT. The Program offers its help to readily identify competent scanner mentors in participant communities.

The rendering program is based upon a set of Crystal Variation Standards that undefine what a competent TransFeminist scanner operator could imagine and might be able to do. Upon fulfillment of these standards, applicants are granted the ETRP Professional Certification credentials.

Framed within the ETRP, learning forks lead to a number of specialized degrees, including:

– Agile 2D to 3D Tu(r)ning.

– Interpretation of Diversity.

– Radiation Safety and Self-Defence.

– Recreational Imaging.

– Cut, slice and go.

– Neolithic Temporality: theory and practice.

Please bring sufficient electricity tokens, bandanna or blindfold, blanket (in case you get cold), and if possible a pillow, to the group meetings. Jewelry and other metal

accessories are not allowed for safety reasons. Everything can be a distraction, especially feelings – if you want to cry, you should and use them in the scans and throw a party. You will receive a copy of any one of the following books and cosmology cards by CT1010 of your choosing: Scanner Magic, CT Ceremony, Coyote Spirit Guides (or Pocket Guide to Spirit Machines), Groups and Geometric Analysis: Integral Geometry, Invariant Differential Operators, and Spherical Functions, Choose Your Own Scanning Family, Voxcell Constellations as a Daily Practice, Earth Technomagic Oracle Cards, Cosmic Cat Cards, Messages from Your Cellular Desire Guides, Voxel Algorithm Oracle Cards or Resonating on Gaia at the first meeting. Print on demand.

You must complete each class in sequence!

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+ various templates for certification programmes.

—CITATION—

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ACLINICAL RENDERINGS **IMPRESSIONS** **PEER REVIEWED** **PRESENCE** **REFERENTIALITY** **ULTRASOUND**

Possible Bodies (https://adanewmedia.org/author/possiblebodies)
Possible Bodies (Helen Pritchard, Jara Rocha, Femke Snelting) is a collaborative research on the very concrete and at the same time complex and fictional entities that "bodies" are, asking what matter-cultural conditions of possibility render them present. These questions become especially pertinent in contact with the technologies, infrastructures and techniques of 3D tracking, modeling and scanning. Intersecting issues of race, gender, class, species, age and ability resurface through these performative as well as representational practices. The Possible Bodies inquiry operates through a growing inventory of software, manuals, artworks, interfaces, scripts, performances, mathematical concepts, animations and renderings.

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