Hacktivism / E-Music / New Media Art

neural.it

EU € 7 / UK £ 6 / US + World \$ 7.99 AU\$ 14.99

ISSUE 49/Autumn 2014

> Off-Western





interviews > Eternal Network in Kinshasa, Eléonore Hellio / House of Natural Fiber /

Cynthia Zaven / Emeka Ogboh / Morehshin Allahyari / Nandita Kumar /

reports > Ars Electronica 2014 / Post-Digital Scholar / Ryoji Ikeda, supersymmetry

Nandita Kumar

> interview



Your early animations, including "Tentacles of Dimensions" and "bIRTH of bRAiNFLy" describe surreal mindscapes, reflecting your personal paths through consciousness and 'individuation.' How did you experience the combination of reflecting on brain-related strategies while concentrating on visualising them and mediating different animation technologies?

Migrating from the highly complex environment of India, initially New Zealand's simplicity was alien. For the first time, the inner complexity became an interest and the body with its internal landscapes came into the picture. In a quest to understand what this shift was I started recording anatomical images in the form of drawing and collages. Simultaneously, I read from varied fields—philosophy, science, psychology, Hindu iconography, Echo Objects: Cognitive work of images by Barbara Stafford etc-which informed my image-making. The process of recording my personal shifts in consciousness and evolution led to the development of a personal hybrid visual language, which were landscapes of body elements. A character called "bRAiNfLy" investigated identity, migration, shifting reality and the sense of displacement that characterises the diaspora experience, with the constant demand for transmutation. During the development of this visual language, I began to realise each image was a story and each story was a part of a meta-narrative. This led me to animating tHe biRTh oF bRAInFly and

Tentacles of Dimension. Through the use of symbols, collage, and electronic media, redoubled by prior associations, I began making visible the invisible ordering of human consciousness by documenting my personal reflections. Years of training as a painter made me look at animation completely differently but after much trial and error, I have come to believe that animation is, for me, possibly the best narrative tool and the most amenable to addressing the complex nature of things. It has allowed me to blend a variety of media in a cohesive and organic form and narrate a journey that communicates without language.

You have also been involved in a significant community project: "Ghar Pe: Dharavi project" which guided people living in the Dharavi slum (in Mumbai), to experience an art context for the first time. How exactly did the project unfold, how was it mediated and what kind of social dynamics were triggered in the community?

I had just moved to Mumbai when SNEHA, an NGO, invited me to be their artist-curator collaborator. They thought I would be a good fit as I worked in multiple media and had already participated in a self-initiated community art project. Humans connect with common experiences. The common thread that I felt could connect the participants and the viewers was "home and its objects" and the varied stories that came through this shared experience. The year-long collaboration, which I began with mapping the participants' own

houses and storytelling sessions based on common household objects, revolved around personal experiences of the domestic. We created an informal intimate space where women gathered to exchange stories and this gradually metamorphosed into networks of kinship and solidarity beyond the family. These networks generated local civic activism around questions of health, sanitation, and empowerment. The sessions culminated in the exhibition "Ghar Pe/Ghari/At Home". The idea of the house was becoming a reality and what propelled the vision was when the team selected household objects of significance to the community such as a charpoi (bed), television cabinet, gas stove, etc. The physical presence of these domestic objects made it easier for these women participating in the workshop to actualise and mature their concepts further. For instance the stove and a number of kitchen elements stood as a symbol of domestic violence. During the workshops each household object was scrutinised leading to conversations initiated by the women themselves. The team found an exhibition hall in Dharavi, a rundown classroom rented from a local high school. All the furniture and objects used were second-hand and recycled. The walls of the exhibition room had objects and images commonly seen on Dharavi streets such as a shutter, ladders, asbestos and tin roofs, plumbing, etc. It was almost as if everything had been turned inside out or outside in. We had a turnout of almost 4000 visitors in two weeks. The participants spoke to

children, inspectors, artists, industrialists, government officials and various others about their thoughts and vision of Dharavi. The confidence I saw in some women who had never stepped outside their homes was enthralling. This project had a language that was easily accessible and communicative; it was an aesthetic and experiential space.

You often address gender and sexuality questions explicitly, as in "aN iNteLLliGENT dESiGn?" and "Tentacles of Dimensions," or implicitly in other works. Do you have a specific approach to these areas? And what kind of feedback have you received in your country?

The two works mentioned are distinctively different. "aN iNteLLliGENT dESiGn?" is a tongue-in-cheek piece on the 50 year of the Pill. This piece comprises of a number of small format canvases linked together with a series of pipes. With the plumbing mimicking fallopian tubes and other bodily organs, the work is a satirical take on the effects of the pill on the female body. The piece delves into questions of sex, pleasure, fear and the changing role of women on a global scale triggered by the introduction of the birth control. "Tentacles of Journey" is an experiential animated journey, which documents the evolution of sexuality and gender roles transforming into an undefined and non-static gender space. This film deals with biology and how we store information not only in the brain but also in our body as bio-



cultural information contradicting cultural definitions. "Tentacles of Dimensions" is a journey of a brain that decides to unplug its cultural programming (or awakens to the fact of constant programming), and purely indulges in the senses. It accepts its sexuality and duality of existence and evolves with each painful birth. Both these pieces were really liked by viewers and I had a lot of good critical as well as media coverage. The interesting part was that collectors in India were really drawn to it but did not invest in the pieces as they were not quite sure about having neurons, brainfly, blood or a vaginal portal on their wall. The films generated quite intense reactions, sometimes leaving a confused/silenced audience. Some even needed to have establish some kind of physical contact with me as if I had touched some inner chords. Quite a few times after the initial deep silence people have come and talk to me separately about their own personal interpretations.

In "eMotiVe sOuNDs of the eLEctRic wRiTEr" you first asked different people to write love letters addressed to various subjects. Then you hacked an old-fashioned vinyl cutter plotter, making it 'print' the scanned and vectorized letters using a felt-tip pen. The machine stops from time to time to elaborate the next piece of the letter, accidentally generating arbitrary dark marks on the paper, which was then used as an obscurely calculated music score. What value do you attribute to the digitisation process? And is

the 'transduction' from one medium into another purposely influenced by random factors? In the project "Emotive sounds of the electric writer" different participants from different parts of the world were encouraged to write handwritten letters that communicate with love. These letters were part of a performance where a machine mimicked these hand-written letters on a long scroll of paper. The machine while printing often stops to think when given complex information. This thinking is recorded by the pen blotting into the paper and leaving a score like impression throughout the scroll. Inspired by John Cage's "Chance Score", the score that emerged from the process was translated into sounds by musicians and then composed into a sound piece. The sound score was not obscurely calculated. A graph was placed on the score and a set of rules were given to the musician in how to read the score regarding dynamics, density, timbre, genre and a traditional reading approach from left to right. The score was presented in the form of a video overlayed by 528hz. The letters were not only data creating the chance score but also a way to get the larger community involved in a project, which was geared towards emotional intelligence and communication skills. This project came through a continuous inter blending of analog and the digitisation throughout the process. The analog letters were scanned and then vectorised by a piece of software so that the machine could translate the handwriting. Each handwritten piece was tweaked by me manually in the software and

tested several times before it looked like the original handwriting. Once the 30ft scroll was printed it was then digitised using a drum scanner and converted into a video for the musicians. This video was uploaded online and sent across to different musicians to respond. Once the sound bytes were received they were dropboxed to my sound collaborator Kari Seekins who composed all the sounds into a single soundtrack. This sound then was composted back to the video. I was keen on developing a language, wherein technology and humanity blend without losing one for the other

"eLEmeNT: EaRTh" is probably your most famous piece (and is similar to "hEliOpHiLic obSeRVatOry" and "pOLymORpHic hUMansCApE"), consisting of big glass containers with functional and non-functional custom-designed PCB boards (made of silkscreened copper and transparent acrylic), micro solar panels, light sensors and various electronics. These autonomous artificial (eco)systems address urban spaces, environments and energy concerns. Are they all meant to live their own symbolic lives, like artificial immobile creatures? eLEMenT: EARTH is a diorama which visualises a future where nature and technology are insync. Inspired by biomimicry, the work comprises a glass bottle containing functional and non-functional transparent PCB boards that produce sounds of the Earth. The sounds respond to light and movement. When touched

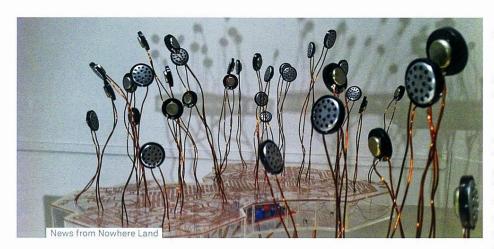
it makes man-made sounds which indicates our carbon imprinting on the diorama of Earth. Larger bottles are powered by solar cells. Through merging circuit schematics and plantbased images the slides show an organic integration between nature and technology. A solar cell "tree" powers nature-based sounds of birds chirping, rain, the Big Bang etc. pOLymORpHic hUMansCApE is an interactive biosphere in a bottle which explores two days through video, in diametrically opposite urban landscapes. Inside the bottle nature-based time-lapse video plays till movement disrupts the video to show the impact of unplanned urbanization. Our cities should incorporate ideologies targeted towards sustainable human ecology, which is oriented towards furthering human consciousness. On the other hand, hEliOpHiLic obSeRVatOry is an ode to the sun inside Edison's first patented light bulb. It questions the role of investors, what inventions are being invested into and whether the material and monetary benefits of inventions outweigh whatever human costs may arise. This is an interactive sound installation, powered by solar energy. When exposed to sunlight the sound changes with the change in indentation of sunlight, which is measured by a solar sensor used in satellites. The second form of interaction comes when the bulb senses movement outside the bottle. These sounds are generated from a graphic score created from the data collected and processed through an image to sound converter to generate the sounds. These sounds are

overlaid on the pre-existing layer and therefore lead to an ever-changing organic sound composition that juxtaposes the sensorial and technical understanding of the sun. On a visual level, the transparent slides show an organic integration through mixing of circuit schematics, nature and solar data. I intend to use different sounds and wave files to connect with the viewer, to intuitively propel the public's imagination towards the sun as a source of sustainable energy. These installations wish to provoke conversations towards sustainable human ecology. They use electronic art to involve the viewer and environmental conditions, relying on the element of chance to shape the ultimate outcome of the piece. These ecosystems have not reached their full potential and are prototypes of a larger vision. I dream of creating such a self sustaining ecosystem in life-size so as to enable audiences to enter into them for a moment of stillness, to daydream, to think. I almost see them as incubators for the human mind.

In "News from Nowhere Land" you used 133 mobile speakers with sounds meant to induce 'daydreams', using specific frequencies. Can you tell me more about what you used and why?

"News from Nowhere Land" is an installation of five "islands" travelling from an imagined Utopia, constructed with 133 mobile speakers, sensitive to light, come alive to resonate sounds that have been designed to transport the viewer into a state of Utopia in the space created by the artist to "daydream". Similar to the nature of ecology, sounds get activated in the presence of light. I wanted to create a space where people were free to imagine. Collaborating with sound designer Kari Seekins, we saw an ideal civilization able to coexist on the grounds of communication, love and interconnectedness with the biosphere. All five islands have a separate circuit board with the same five sounds but shuffling randomly to create continuously different soundscape, which includes sounds of Solfeggio frequencies. Although, these frequencies are controversial because their healing tendencies have no scientific validation, I tested some of them on myself and they had some perceivable effect on me. Sounds include: Love Frequency (528Hz): Idea that all beings have a psychic connection through unseen frequencies and that Utopia can be attained through an awareness of how we resonate with one another | Universal Consciousness (Crownchakra frequency 963Hz) | Communication (Thinned out radio waves and satellite recording) | Nature (Eco-System) Little utopias in themselves | Thought (Manipulated human voices of people talking about Utopia) Sharing thoughts over great distances.

The production of such artworks involves both design, commissioned industrial production, electronic tinkering and pure craft. How do you manage to take care of all these different aspects?



My work is heavily production and collaboration intensive. After developing the design and concept, I create teams that offer the particular skills needed for a project. Art funding bodies are very limited and finding skilled people in India within my budget constraints is a difficult process. I work with specialists varying from borosilicate glass fabricators, engineers to code and design circuits, PCB fabricators, silk screeners, 3D modellers, Photoshop specialists for cleaning images, a laser cutting team, printers and carpenters. I then have a freelance in-house team that helps me in sourcing electronic components, cleaning, soldering, preserving and assembling the slides in my studio. My fabrication process alone can take up to four months. I have mostly been hiring people who have been repairing electronics but have been losing their jobs due to the use and throw culture of electronics. For sound design, I collaborate with Kari Rae Seekins (LA) and we have been working together since 2007.

Beyond 'inventing' your own 'systems' you research failed and forgotten inventions. Do you feel that for economic or other reasons we've missed some important innovations over the years? Have you encountered anything that falls into this category?

While researching for hEliOpHiLic obSeRVatOry I became interested in historical moments that define human technical accomplishments and started questioning whether history could have taken a different course if we had adopted

certain inventions. My interest in sustainable energy took me to Tesla, specifically his patent for wireless electricity. His generator is able to produce energy without using up other natural resources like coal or water; producing energy this way will not pollute the environment. Energy made this way would be free, which is perhaps why this invention was not very attractive to venture capitalists in 1900. I encountered two more fascinating inventions that were not followed through: Flexible glass (a legendary lost invention of the Roman empire) and the Iron Pillar of Delhi, which has not rusted for almost 1600 years. If we had adopted these inventions and technologies, our biosphere would have been different and possibly less dire. If flexible glass technology had not been allowed to flourish, then perhaps plastic would not have been created. Researching such innovations from an artist's point of view, could help art to intervene in an industry-driven society.

What's your relationship with the rapidly growing contemporary art system in India?

I have been embraced and supported by the art world in India and within a short period time acknowledged for the work that I have been creating. However as an artist working in electronics, I find myself alone and unable to engage in any critical discussions in relation to my work. With the lack of contemporary art museums, funding bodies and government support the art market is lopsided and dependent only on galleries. Though the

galleries are playing an important role in promoting contemporary art, it can also be limiting to artists who want to experiment and show artwork that does not lie within purview of gallery acceptance. Quite a bit of the work is being sold internationally as currently India is in fashion. It is a challenging market when you are navigating through all these paradigms. There needs to be an ideological shift towards a healthier cultural investment in India. You're also working on a new project called "Ecology of the invisible city", which aims to realise a mobile app to connect sound art works with specific environmental concerns. Do you think that sound is somehow the medium most emotionally connected to environmental issues?

The intention of the application through sound, interactivity and visuals is to reconnect app users to nature and inform them about rapid urbanisation and it's effect on ecology in different ways. No immersive experience can be created without sound. I strongly believe that sound is a more direct way of transmitting information than words. The app is an augmented reality app that will enhance the viewer's immediate experience through sound and visuals that are being informed by the immediate environment. A concept note written by the sound artist will also appear and can be read while experiencing the soundscape. The app functions by enhancing one's current perception of the city and the environment, beyond the daily spectacle imposed by industries through advertisements and the shaping of social interaction (through attractive mobile technologies), by bringing in different thoughts and ideas from varied local perceptions of cities and triggering a different shared awareness of the surrounding environment.

Nandita Kumar is a new media artist living and working in Bombay (India) and Auckland (New Zealand). She holds a joint Bachelors Degree from MS University, Baroda (India) and Elam School Of the Arts, Auckland University, (New Zealand) and has completed her Masters Degree in Experimental Animation at California Institute of the Arts, Los Angeles (USA). http://nanditakumar.com/