

AiRCAST #1

TINI ALIMAN

NTU CENTRE FOR
CONTEMPORARY
ART SINGAPORE



Tini Aliman, *Pokoknya: Intrusive Transducers*, 2021, single channel video. Courtesy of Eswandy Sarip.

Anna Lovecchio: Welcome to AiRCAST, AiRCAST takes us inside the Residencies Studios of NTU Centre for Contemporary Art Singapore, located right at the edge of a lush tropical forest in Gillman Barracks. On this podcast, we broadcast the inner lives of our Artists-in-Residence entering their studios during their residency and inviting them to share about ideas, materials, processes, influences and research methodologies behind their practice. I am Anna Lovecchio. I am a curator and Assistant Director for Programmes at NTU CCA and I am your host for today.

Today I speak to Tini Aliman. Tini is a Singaporean artist, sound designer, field recordist and foley artist working with sound, theatre, installation and film. Her artistic practice encompasses sonic and spatial experiments that focus on forest networks and plant consciousness, acoustic architecture and biodata sonification. She is a long-time friend of NTU CCA where she has performed on several occasions in the past four years. And since five months she is also an Artist-in-Residence with us and she has been working on a project tentatively titled *Close Circuits and Underground Networks* which looks at tree stumps as sonic archives of the environment and of collective memories. Hi Tini! It's wonderful to have you here!

Tini Aliman: Thank you Anna and a big thank you to the NTU CCA Singapore team for the opportunity to be a part of the residency programme. It has been a rewarding experience.

Anna Lovecchio: It's been so great having you around these past few months. But let's start from the beginning. I always like to find out how artists become artists. All the more so when an artist's trajectory does not follow the beaten track

of conventional training. Would you like to share about your background and how you straddle the worlds of theatre, music and contemporary art?

Tini Aliman: For most of my life, I have always been the audience, the listener and the observer. I grew up with music, played in school bands and in punk bands. I downloaded music-making applications like Fruity Loops and then moved to DAWs. The only instrument I learned to play was the drums and back then I thought it did not give me a lot of options to make music on my own and I decided to have fun with electronic music in my bedroom. I did not know a Cheryl Ong could exist!

Anna Lovecchio: That's very true!

Tini Aliman: Like many of my peers growing up in the early 2000s, I spent weekends at local gigs at times in tiny venues like a 3x2m2 recording studio where we were licking each others' sweat. The garden of the Substation, which is Singapore's first contemporary arts centre, was also significant to me. That's where new bands constantly emerged and performed there regardless of genre. The noisier the music, the further my body was flung around, the more I enjoyed it and soon I found myself moving further to the back of the moshpit, or what we now call 'The Auntie's Corner'.



The Substation, image by Choo Yut Shing, 2012
www.flickr.com/photos/25802865@N08/7933525394, some rights reserved

Anna Lovecchio: 'The Aunties's Corner'? That's funny. And then there was theater as well.

Tini Aliman: Yes, In 2009 I auditioned with a sound piece for a youth theatre programme by Teater Ekamatra. And I got in, yay. The Artistic Director at that time, Zizi Azah asked if I would like to work on the sound design for a play called *Charged!* by Chong Tze Chien. That was my debut in 2010 and I am still doing theatre sound design up to this day. Thinking, sensing and perceiving more carefully the visual, sonic and tactile elements in art has always been the key learning point in my short stint in the arts. I still work in theatre sound design, but I have recently drifted towards a more cross-disciplinary and collaborative approach.

Anna Lovecchio: Currently you are enrolled in the Interdisciplinary Music Studies programme at Berklee, a college of contemporary music in Boston and you are taking online classes.

Tini Aliman: Yes I am.

Anna Lovecchio: I'm not sure this applies to you, but I feel that when we go back to school as adults, we have a stronger agency in shaping our learning experience compared to our younger selves. So I am curious to hear how this experience has been for you so far.

Tini Aliman: Well I have never had a formal education in music or the arts. I spent the first half of my life in media and advertising and it has been about 15 years since I last went to school. The Interdisciplinary Music Studies programme at Berklee College of Music covers modules from my favourite subjects like Critical Listening, Acoustics and subjects which I wished I learned in my tertiary years like Art History, Music History, History of Sound in Film and Music Therapy.

I am neither for nor against arts education. Some musicians do not think that music theory is necessary to be a good musician for example. Not all engineers are musicians and not all musicians are engineers. For me, it gives me room to unlearn my personal biases and artistic preferences. Studying these modules gives me the language facility to appreciate, to analyse and subscribe to artistic expressions and I discover an important lesson that there is no right or wrong

answer when it comes to art-making and creative processes, especially in the open-ended and speculative aspects of research or the technical aspects of audio engineering. I apply what I learn to my work on the fly! For example, the analog phase cancellation work for the second iteration of *Pokoknya* presented at the National Gallery was the result of the module on amplitude, constructive and destructive interference. My friends often ask, at times with worry in their tone, when am I going to be done with school. I thought about it and I don't think I ever want to be done with learning.

Anna Lovecchio: That resonates so much with me... At times I catch myself longing to go back to school as well... just to regain that undivided attention and mental focus on certain subjects that I cannot really afford to have in this multitasking job that I am doing now. I am possibly idealising the school years, but maybe I should follow your example. Let's talk about your relationship with sound and nature which seems to be generative of so much of your artistic practice. You spend quite some time outdoors, mostly in the forests and along the coastline, looking, listening and recording... How did you become entangled with nature in the first place?

Tini Aliman: Isn't nature something most of us run to these days, especially during these strange times we are in? Some of us go out there as an escape, others have been doing this all their lives. I am very fortunate to meet and spend time with some biodiversity 'experts' on my field trips, learning and meeting new lives within our shores. And I am truly inspired by the works of other artists here too, like Lucy Davis' *Migrant Ecologies Project* and Zai Tang's works with nature in times of ecological crisis. Hi Lucy, hi Zai!

Anna Lovecchio: Hi guys!

Tini Aliman: My interest in working with nature also stems from my deep appreciation for silence and the silenced. For this I'd like to quote Ryuichi Sakamoto in an interview where he said "Why do I want to play much slower than before? Because I wanted to hear the resonance. I want to have less notes and more spaces. Spaces, not silence" Having quiet moments alone and in silence became more important to me over the years. I engage in listening through playing, moving to the depths and appreciating the informal structure of composition in the subtle vibrations of living things. That led me to start

measuring the galvanic conductance on plants' surfaces and textures and converting them into sound like in these early recordings of plants I made at Fort Canning Park.

[Recording of plants in Fort Canning Park, Aug 2018. Courtesy of the artist.]



Fort Canning, image by Corey Seeman, 2016
www.flickr.com/photos/cseeman/27604751935, some rights reserved

Anna Lovecchio: You were born and raised in Singapore, a highly urbanised but also extremely green city where manifestations of nature are shaped by political agendas. These agendas have evolved considerably over the last years, decades actually, moving from the post-independence concept of *Garden City* from 1967 to the notion *City in a Garden* introduced in 2008. Now, the Green Plan 2030, which was unveiled just a few months ago, does away with the notion of 'Garden' altogether advancing the vision of "City in Nature" instead. What are your thoughts on growing up and living in an environment that is so pervasively controlled and imbued with national-building politics?

Tini Aliman: By the time I was born, Singapore was already quite urbanised. The village I was born in was removed by the government in the 80s when I was about 5 years old. In the village, we used to be able to walk a few hundred meters in the little forested area around the radius of our house. At some point, they started constructing a large drainage system in our area with drains deeper than the height of any 5 year old. I never got lost in the forested area but one day I fell into a drain and it took my family the whole evening to find me because I was too short to climb out.

Anna Lovecchio: Oh no... that sounds like such a traumatic experience!

Tini Aliman: It really was! After that we were relocated to high-rise flats and I was too young to remember the move, but I have these vague memories of space and height. I remember taking the lift down from the 10th floor by myself and not being able to find my way back up. That called for another search party to be sent out. I was getting lost in the heights. Similar narratives about having people moved to HDB flats are really not that uncommon and have been quite prevalent since the 1960s. The evolution of public housing and the redevelopment of land inevitably led to green spaces in Singapore being altered which then impacted the flora and fauna on this island. Even the physical landscape was reshaped to support urbanisation and commerce.

I am however quite grateful for the consolidated approach towards nature and environmental conservation of groups like Nature Society, NParks and more recently, the SG Climate Rally which protects places, animals, plants and other organisms with historical or scientific interest. For example, NPark has this "Heritage Tree Scheme" which advocates for the conservation of Singapore's mature trees. Anyone can nominate a tree to be a heritage tree. It is based on their botanical, historical and/or aesthetic values. There are about 250 heritage trees in the Heritage Tree Register now. Well, you know what they say about living here, we do what we can lah...

Anna Lovecchio: Oh yes, the Heritage Tree Programme is actually amazing. I really appreciate this bottom-up approach which allows any citizen to step in and highlight the importance of a tree. When I see a heritage tree sign, I always go closer and read the label... And that is how a few months ago, I found out that there is a Baobab in Fort Canning! Baobabs are these prehistoric species which

pre-dates even the splitting of the continents millions of years ago. And for me, in my imagination, they are epic trees since I read *The Little Prince* when I was a kid and so I was very excited to chance upon a baobab in person for the first time.

Tini Aliman: Oh really? They are very good looking trees.

Anna Lovecchio: Although it did look quite different from the drawings in the book. And it was also a surprise because Baobabs are originally from Africa and they normally thrive in dry and arid environments so it was stunning for me to find out that we have one here, in our humid tropical climate. But let's move on to talk about one of your main interests, which is plant consciousness. Philosophies and studies on plant consciousness are sometimes criticised because they project characteristics and emotions that belong to humans onto our non-human fellows. However, you seem to be rather aware and wary of this tendency to anthropomorphise non-human beings...

Tini Aliman: When it comes to plant consciousness, the association with new age world views or the contrast between science and pseudo-science, are not that relevant for me. Many multidisciplinary works of art we see today, both in visual arts and music, draw from multiple reference points, and they can be simultaneously poetic, intellectual, scientific or traditional. In them, the tendency to humanise objects or living things is very blurred. For myself, I decided to let go of all the fixations and methods and let the movement of the musical imagery flow and progress with more emotions, more meaning and mostly intuitions.

I am still on the fence about the ethics of working with these living materials but I want to understand more about how they perceive the world, from the colours they 'see', to the sensations they 'feel' and how they 'hear'. I am very interested in genetics studies that draw parallels between the human and plant senses. For example, what do we have in common with say a banana plant or a banyan tree?

Anna Lovecchio: In your engagement with non-human life forms, is there a specific encounter that marked a watershed in your way of thinking and/or making art?

Tini Aliman: Already In the 19th century, scientists discovered that the impulse that causes a plant, say a venus flytrap to close, is electrical. And that it actually

resembles the signal of an animal nerve or muscle. Because they are rooted, plants cannot escape their environment and they have to adapt biologically. For instance when a tree is exposed to the wind, it responds by retarding its growth or making a thick trunk in order to protect itself. Plants also respond to touch. This response is called thigmomorphogenesis which permanently changes the structure of a plant in response to mechanical stimulation. Have a listen to this...

[Audio excerpt from *Plants emit sound when stressed*, ILTV Israel News, Dec 11, 2018, <https://youtu.be/5YHnVdA2ZG8>]

Tini Aliman: This is a clip of plant under stress recorded from a group of researchers. These researchers argue that when plants emit ultrasonic sounds between 20 and 100 kilohertz, it is to convey their distress to other plants and organisms in the immediate vicinity. Our human ears can hear up to 20KHz, so the screaming we just heard is actually quite a cute human rendition of plants screaming in pain, so like you said – anthropomorphise right.

Anna Lovecchio: Disconcerting.

Tini Aliman: So Professor Daniel Chamovitz from Tel Aviv University, observed that the same chemicals, the same drugs that inhibit the movement of water in humans, influence plants the exact same way – for example, what Panadol does to our brain to stop us from feeling pain which leads us to realise that plants and humans share the basic cellular mechanisms. However, while plants respond to mechanical stimulation, they don't have a frontal cortex like we do. The frontal cortex is that which defines emotional status and, essentially, processes pain and suffering for us even though pain is really subjective. Professor Daniel Chamovitz is really confident to say that while plants feel mechanical stimulation, they don't feel pain and they don't suffer. So I guess, this is good news for vegetarians!

Anna Lovecchio: Yeah maybe. Let's hope Professor Chamovitz is correct! And that our alimentary survival as a species does not cause undue suffering in the vegetable kingdom. You are researching a fair bit on plants and your works are, as you say, 'collaborations' with plants which often involve the sonification of the biological data of the plants themselves. How do these collaborations unfold? And which data are you interested in?

Tini Aliman: So at the very beginning, in my head, I had a tentative format for this collaboration with plants as a substantial communication done through sound. And I had some unconstrained timings for the arrangement and composition. My first departure point on capturing data from plants was Cleve Baxter's plant polygraph, an experiment conducted in 1966, where he hooked up a galvanometer to the leaf of a houseplant that he kept in his office and based on his observations, he claimed that plants have extrasensory perception. So that led me to many other readings on plant neurobiology and I approached these research materials not so much, returning to your previous question, to find out if plants have emotions and any other kinds of anthropomorphic qualities, but more as a sound technician. I was interested in using technology to measure the galvanic conductance in plants, which is a form of bio-electricity, and transform that data into sound. Some sound artists record wind and kites, water and whales or metal, bridges and monuments. I just record water movements in leaves and stems and events in soil.

Anna Lovecchio: And your way of recording is not a purely distanced, hands-off, and ears-only act. There is always quite a bit of hardware and circuitry, wiring-up and synthesising involved in your making process, right?

Tini Aliman: That's right. The first plant I recorded was a *figus microcarpa* or the Malay Banyan. By attaching electrodes to the leaves or the skin of a plant, fluctuations in galvanic conductance will produce MIDI notes. These notes are transmitted on a configurable MIDI channel. There was a lot of playing involved in the process of experimenting with what I learned about plant responses to touch, light and the vibrational effect of external soundwaves. And there were also collaborations with other musicians. In a way, plants have been acting as MIDI controllers triggering sounds of virtual instruments using their electrical and chemical signalling systems. They exhibit, so to say, a brainy behaviour in the absence of brains. Through these experiments, I found that larger leaves, thicker ones, with non-complicated vein patterns. Leaves like the Sansevieria Moonshine or the Banana Tree leaves produce slower rhythms and that we can get a nice constant beat from smaller leaves like the *microcarpa* or the kaffir lime.

Anna Lovecchio: Which brings us straight to *Pokoknya*, a project that spans several years and started out with one specimen of the species you just mentioned, the *figus microcarpa*, this specimen in particular sits peacefully in

a pot in your own backyard. It is a tree that you and Zarina Muhammad, who is your partner but also an artist and an Alumna of our Residencies Programme, affectionately call Ara. Ara has been your muse and collaborator for this project and she has 'performed' with you here at NTU CCA a few times. Shall we talk about your collaborations with Zarina and Ara?

Tini Aliman: Zarina and I have quite diverging interests, but our respective research overlaps on topics such as plant consciousness, plant communication networks and interspecies entanglements so this is where we share resources and support each other's practice. In the last few years, we have also been looking into indigenous names, knowledge, ecologies and contested histories of plants. Researching also the cultural associations rooted within Southeast Asian beliefs.

The lecture performance *Flowers of our Bloodlines* in 2017 was the first time Zarina and I collaborated with Ara, our Banyan tree. Banyan trees in Southeast Asia are well known for their associations with spirits and it is believed they provide a shelter for them. So in the region, the *ficus benjamina*, *ficus microcarpa* and *ficus religiosa* often lend themselves to become homes for spirits, as shrines for elemental deities in temples. This idea became one of the tangential points explored in *Flowers of our Bloodlines*.

[Audio excerpt from Zarina Muhammad, *Flowers of our Bloodlines*, lecture performance, NTU CCA Singapore, 2017]

Ara returned to NTU CCA two years later, in September 2019, as part of Zarina's Open Studio during her residency here. For that event Ara was accompanied by 6 other plants who were selected for their polyphonic histories and particular connections with mythical and historical figures based on Zarina's research. Finally, Ara performed again at NTU CCA in January 2020 where we were commissioned to create a performance in response to your exhibition – *The Posthuman City*.

Anna Lovecchio: Oh that feels so long ago, so much has changed since January 2020.

Tini Aliman: Yes it felt long ago. So for this performance I collaborated again with Zarina alongside gamelan musicians Zachary Chan and Rosmainy Buang (from Singa Nglaras Gamelan ensemble) and musician/sound artist Eswandy Sarip.



Tini Aliman, *Pokoknya*, performance, 17 January 2020, NTU CCA Singapore, Courtesy of NTU CCA Singapore.

It is also when the title of the project *Pokoknya* was used for the first time.

Anna Lovecchio: What does *Pokoknya* mean?

Tini Aliman: *Pokoknya* is Malay for either 'a tree belonging to' or 'the root of the matter'. I find the Malay language simply poetic and full of nuances that sometimes we cannot be translate it to English. I was very happy with the title *Pokoknya* as I felt that the term encompassed and embodied a range of layered meanings, significant to the process and intent of the work.

Anna Lovecchio: Here we were interested in exploring the politics and themes of a very well-known gamelan song - It's called the *Ketawang Puspawarna* - attributed to Prince Mangkenugera IV of Surakarta, who reigned in the mid 19th century in central Java. This piece of music has even been included in the Golden Voyager Record that was sent up into space in the late 1970s along with a lot of other songs, to signal human presence to whatever extraterrestrials may find it.

Tini Aliman: I wonder where it is now.

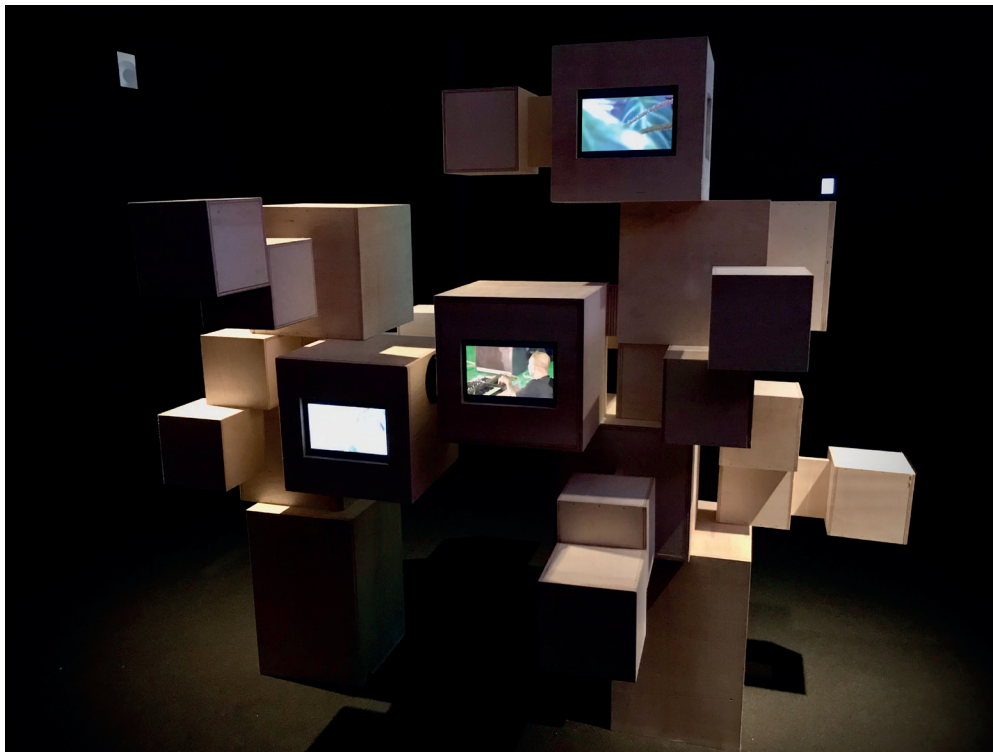
[Audio excerpt from Tini Aliman, *Pokoknya*, performance, 17 January 2020, NTU CCA Singapore]

Tini Aliman: The song mentions 9 types of flowers meant as an allegory to the women in the court. *Ketawang Puspawarna* is often only sung with three stanzas, but in our performance nine stanzas were sung. Each stanza features a specific flower and incorporates a poetic riddle. We started performing the piece traditionally at first. After a few stanzas, the musicians gradually broke out of the traditional structure into an improvised form where we were taking cues from the plants and from each other.

Anna Lovecchio: I remember that very well.

Tini Aliman: Oh do you.

Anna Lovecchio: And then *Pokoknya: Organic Cancellation* came about. The work was commissioned by National Gallery Singapore for the exhibition



Pokoknya: Organic Cancellation, 2020, mixed media installation, installation view.
Courtesy of the artist.

An Exercise of Meaning in a Glitch Season curated by our mutual friend Syaheedah Iskandar. This is your first attempt at articulating your experiments with plants into an interactive mixed-media sculpture which also incorporates videos. The work is a modular structure made of plywood cubes arranged to suggest the shape of a tree, let's say a three-dimensional pixellated tree, and viewers can interact with its sonic emanation...

In this iteration, I further explored the limits of interspecies communication, the remembered afterlife of performances, the nature of glitches, and the polarities of sound. The videos act as a memory map, capturing the sonic semblances of specific places that have undergone environmental change. The sound part experiments with analog audio phase cancellation, which is a phenomenon where the two sound waves of the exact same frequency cancel each other out when one of them is being inverted. And visitors can interact with the speakers and disrupt the 'sound cancellations' by stepping on a foot pedal between the two speakers on the tree sculptures.

Anna Lovecchio: While preparing for this interview, I read somewhere someone saying that phase cancellation is some sort of 'mystical matter in studio engineering'!

Tini Aliman: Phase cancellation is actually considered some sort of a mistake in audio engineering. But what is considered a technical mistake can be used creatively. For example, think of the music from the 1970s. Led Zeppelin used a lot of phases in their music.

Anna Lovecchio: I am not sure I completely get this. If the frequencies cancel themselves out, what do we hear?

Tini Aliman: Well it depends on many factors like the speaker attributes, the size of the room or even the temperature of the space. This refers to analog phase cancellation using speakers, not on a DAW. So at times if the waveforms are not exactly the same, what we get is called a phase shift, an additional 'unwanted' sound that many mix engineers would want to get rid of. Going back to *Pokoknya: Organic Cancellation*, for me this acoustic dynamics very much correspond to the state of the world at the time the work was made. We were in 'Circuit Breaker' in Singapore at the time, all boxed up in our little apartments and this cancellation reflects the impact of this paradigm shift on our being.

How the state of our being in these strange times is rendered cancelled...

[Audio excerpt from Tini Aliman, *Pokoknya: Organic Cancellation*, 2020, mixed media installation]

Anna Lovecchio: Collaborating with humans and non-human beings especially appears to be a key aspect of your working methodology. To me, this approach evokes Donna Haraway's concept of sympoiesis – of working together, creating together, making with. It is concept that Haraway puts forth to reconfigure human relations to the other inhabitants of the earth in these troubled times we are living in as you said before. What have you learnt from your collaborations so far?

Tini Aliman: About collaborations I'd like to make a point made by Prof Anthony Scibilia from Berklee College of Music, where he spoke on art that increasingly used unconventional materials/methods to create the work, and of the idea that we may sometimes fear what we do not understand. That made a strong impression on me. My work as a sound designer for theatre is largely defined by a set of 'rules' where the outcome of the work is based on the play's narrative, the notes from the director, and the actors' interpretation. In the last few years, I have been involved in collaborations with filmmakers, choreographers, dancers and a range of visual and performance artists. This journey enabled me to better reflect on the intersections between these specific art forms.

I appreciated the collaborations where the roles of artists shifted, where artworks contain a multitude of ways of thinking of the world in which we live in and articulate critical questions on originality, on authorship and authority. I realise that I do not see music, visual art, philosophy and literature as distinctively separate entities, and I appreciate the ways different modes of expressions influence and enrich each other.

I have been reflecting a lot on my collaborations with these artists, who do have varying methods and modes of working that I initially was not very familiar with and did not understand very well. While challenging, these collaborations have also mirrored my journey – in the sense that my understanding of creative practices and languages have expanded and I'm seeing more clearly how there can be a symbiotic relationship between these different art forms. Through strategies of collaboration, I learned the seamless ways in which we communicate across different modes and mediums. This is the trajectory in my own practice

that I wish to continue pursuing, to explore music and sound through more synesthetic approaches.

Anna Lovecchio: Great that you have such a clear sense of purpose!

Tini Aliman: I try my best.

Anna Lovecchio: Is there anyone in particular, human or non-human, you would love to collaborate with?

Tini Aliman: If presented with the opportunity, I would like to collaborate with Dr. Monica Gagliano, my favourite researcher in Animal & Plant Behavioural Ecology. I mean of course, she comes second after my favourite rockstar academic-artist-researcher Zarina Muhammad!

Anna Lovecchio: Of course!

Tini Aliman: So why I would want to collaborate with Monica Gagliano is because up to 2012, there was no scientific evidence that plants can hear. Previous experiments were done with rock and classical music, but given the timeline of music and plant evolution, music seems not to have evolutionary pressure on plant development. A new study on plant cognition by the Center for Evolutionary Biology of the University of Western Australia which is led by Monica Gagliano herself found that plant root systems travel toward water sources by sensing acoustic vibrations. The researchers played water flowing through a sink and a recording of the same sound to common pea plants and examined how the roots responded. They found that root systems did not grow toward the recorded sound but they did grow towards the water flowing through a sink.

Anna Lovecchio: Interesting.

Tini Aliman: Gagliano's team found that plants could distinguish between 'fake' water sounds and the real thing, it's like as if they can feel sound. I am still following their development closely and would like to try this at home.

Anna Lovecchio: That sounds like a fun DIY experiment. I wonder how happy Zarina is going to be with this... Let's move on to talk about what you have been up to during the residency. Over the past 5 months, we have seen your studio



Studio of Tini Aliman at NTU CCA Singapore. Courtesy of NTU CCA Singapore.

morph into something in-between a carpentry workshop and a mixing studio.

[Sounds from Tini Aliman's studio]

Anna Lovecchio: You are working with tree stumps but you are also 're-cycling' plywood from your work *Pokoknya: Organic Cancellation*, which we discussed just before. I see this gesture of pulling apart and repurposing the materials of your sculpture as a strong, ecological statement against the dynamics of the art world where once a work is made, it is meant to stay as is and can no longer be touched. And also, when I think about what you are doing, a quote from a book that I really enjoyed reading last year during circuit breaker comes to my mind. This is the quote: "What you make from a tree should be at least as miraculous as what you cut down". It is kind of a warning or invitation. The book is called *The Overstory*, it's a novel by Richard Powers, and my question is what 'miracles' are you concocting with your wood?

Tini Aliman: Miracles? Well if I can go back to the point I made about the ethics of working with these materials. Well, I am still finding my footing there. For this residency, I proposed to work with 'dead trees' and also repurpose wood materials from my previous projects to 'breathe new life into them. To me these remains of what appears to be lifeless trees are witness to the changes in their environment, for example resistance to pestilence and other ecological changes. They have also witnessed the extractive hand of urban capitalism. I see the remains of these dormant tree bodies as potentially embodying an archive of environmental soundscapes. While it is impossible to bring a dead tree back to life, for this project I intend to explore ways of engaging with these tree stumps through other sensory modalities. What does it mean to try to listen to an organism that appears, on first sight, to be lifeless? Can tree stumps present meaningful frames for deep listening? Do they embody/possess their own site-specific acoustical signature? So these are some of the questions guiding my residency research.

Anna Lovecchio: Can you expand more on the process you are undertaking? Where do you source your materials and how are you working with them?

Tini Aliman: Most of the found wood I collected so far comes from different locations on East Coast Park, since I have been following closely the tree pruning schedule along the East Coast. I have also acquired pieces of mahogany or Khaya, oak, there's ash and Angsana wood pieces with nice looking textures from the rings that formed over the years. And, as you mentioned, I have also scrapped the wood structure of *Pokoknya: Organic Cancellation* and I am reusing that material. At this stage of the project, I am trying to figure a way to make these pieces move mechanically, as kinetic sculptures. I also plan to mic them up to hear what they sound like. For this, I am attempting to recreate a network of closed circuits, mimicking how the trees communicated when they were still alive.

Anna Lovecchio: Let's dig deeper into your understanding of trees as environmental archives, which I find very fascinating. As you just mentioned, you regard trees as witnesses of a multiplicity of events, either natural occurrences or anthropogenic events. What are you discovering about the Singaporean environment through this project?

Tini Aliman: Going back to what I said before, I see tree remains as potentially embodying an archive of environmental soundscapes. It is well known and understood that this island's landscape has undergone dramatic and immense environmental changes, particularly in terms of land use due to human activities; the rapid urban redevelopment and cycles of deforestation have made way for plantations, roads, MRT and other modern infrastructure. I've been thinking a lot about how these human acts have impacted the biodiversity and the small remaining pockets we can still consider to be 'natural environments'. For example, in 1819 it was noted that an estimated 13% of the island was made up of mangrove ecosystems. Today we have less than 0.5% remain.

Anna Lovecchio: Yeah, that's terribly sad.

Tini Aliman: A very good example of a tree that has generated a slew of artistic responses is the Malayan Banyan at the Substation. That tree has witnessed human impositions of 'development' like the demolition of the National Library, where we used to hang out there a lot as students. There are artworks by Robert Zhao. Lucy Davis engrafted parts of the tree to grow into seedlings, and Tan Pin Pin documented the process of removing the tree. From my sonically-leaning perspective, the tree has also witnessed over two decades of local acts performed at the Substation garden before it was cleared in 2014. Growing up, I remember watching bands like Humpback Oak, Stompin' Ground, Plainsunset, and Astreal to name a few and these gigs were organised independently by the artists themselves. Some of these gigs were not recorded nor archived. I don't know, maybe we can ask the tree?

Anna Lovecchio: That's right.

Tini Aliman: Through this project, I learned that there are conservation and recycling efforts where industries can leverage technology for productivity and the environment. The Sungei Kadut eco district, for example, launched Singapore's first wood recycling plant in 1999, converting wood chips into new products like furniture, wood pallets and flooring strips. Other timber companies are also trying new ways to improve their process like generating electricity from unwanted wood. One of our local woodcrafters, Roger & Sons started *The Local Tree Project*, salvaging trees that have been felled for urban development and turning these abandoned logs into durable future-proof objects and furniture, using every single part of the tree to minimise wastage. On one of my cycling

trips to find wood along East Coast Park, I stumbled upon a tree graveyard where large mahoganies, rain trees and some smaller sea almond lay in a large carpark. The subsequent times I went there, I saw that they have been cut and shaped like seats and I reckon they are going to get a new life along the East Coast beach. I wrote to Nparks but I am still waiting for them to reply to my email.

Anna Lovecchio: What did you write them about?

Tini Aliman: I want to know where these trees come from and how old are they? Why were they cut, where are they going, what they are going to do with them. Yeah stuff like that so Mr Jeremy Ng please call me.

Anna Lovecchio: Yes please reply to Tini. As part of your research during the residency, you are also looking at analogies between underground fungal networks and printed circuit boards, commonly known as PCBs. Could you talk more about this?

Tini Aliman: I started becoming interested in forest underground network after I acquired this microphone called Geofón by LOM. Not very easy to get it. So it is designed based on devices used for seismic measurement, quantifying the tremors and shakes propagated through the ground. I went around at the back of Gillman Barracks sticking the spike of the mic into the ground, but it seems like we do not really have many activities going on in there other than the movement of some living things like worms and bugs. This is what it sounds like.

[Underground sounds from the forest at Gillman Barracks captured by Tini Aliman with a geophone, August 2021]

So underground, there is a complex network connecting trees using a symbiotic relationship with microbes in the soil like fungi and bacteria. Fungi covers a large surface area by developing white fungal threads called mycelium. They take up sugar from the roots of the hub tree, the tallest and oldest tree in the forest, and give back vital minerals like nitrogen and phosphorus to the trees surrounding this hub tree. They also communicate to each other and facilitate tree resilience to certain environmental stressors like predators and toxins. A printed circuit board, or PCB, is used to mechanically support and connect electric components using conductive pathways etched on copper sheets laminated on non-conductive substrate.

Anna Lovecchio: That's very technical.

Tini Aliman: A PCB allows signals and power to be routed between physical devices. You can take any electronic device that you don't want anymore of course, pull it apart and see what's inside. To design, build and troubleshoot circuits, we use schematics as a map. And there are many parts to it, for example, we have resistors, capacitors, inductors and of course we need the power source. I noted the strong resemblance between the mycorrhiza network and the PCB etching design while working with these components. They are both about Interconnectivity, signal transfer, data communication, to name a few. Reliance on the hub tree in the underground forest network can be likened to a power source on a PCB. There are so many more discoveries to be made to understand the wisdom of the forest and their invisible microbes. Right now, I am organising these ideas in a series of drawings that explore this analogy.

Anna Lovecchio: I can't wait to see more of these drawings and, also, the prototypes of your kinetic sculptures at your open studio which is happening in a few weeks!

Tini Aliman: Yes it is.

Anna Lovecchio: We are keeping you quite busy at the end of the residency. As we wind down this conversation, we must not fail to mention that you made a long-term contribution to this podcast! You created the sound compositions we hear at the beginning and at the end of each episode. We absolutely love them, thanks so much Tini for making them!

Tini Aliman: Oh no, that was so much fun.

Anna Lovecchio: Our desire for the intro/outro sound clips was to share with our listeners the soundscape we work in every day at NTU CCA. So we invited you to take field recordings of the Gillman Barracks forest, where the Centre and the studios are located. Can you tell me what you discovered about the ecology of this area and the types of living entities you've identified through listening and recording?

Tini Aliman: The opening and closing of the tracks were recordings of the



Tini Aliman, *Of Underground Schematics & The Fallen Tree*, performance, Residencies INSIGHTS, 18 September 2021, Residencies Studios. Courtesy of NTU CCA Singapore.

dusk and dawn of the space in front of Block 37 Malan road, where my studio is situated. I made my way here at about 6am to set up and recorded during civil twilight timing of 6.41am to 7.03am on that day. The birds here are relatively quiet as compared to the ones at East Coast, but the ones which were obvious, were the oriental pied hornbill. They just wanted to be recorded! Other sightings include Pink-necked Green-Pigeon, Black-naped Oriole, Yellow-vented Bulbul, and I once saw a Brahminy Kite when I was standing outside my studio the other day. I am always happy to see a Brahminy Kite, they are very elegant and sexy.

An interesting observation was made by a fellow artist, Nina Djekic when I was doing some recording at the back of Gillman Barracks.

[Field recordings of a walk through the forest at Gillman Barracks, December 2020]

Tini Aliman: I recorded a walking loop. Starting from the back of Mizuma Gallery and I climbed my way to Telok Blangah Park via the metal bridge. On the way back, I walked through the Earth Trail towards the same starting point. As there are a lot of roads surrounding the little forested area we have here, we always hear traffic, even in the very early hours of the morning. It was interesting that Nina heard that difference in sound as I escalated higher on the bridge. It was as



Tini Aliman and Anna Lovecchio recording AiRCAST on 30 August 2021,
Courtesy of NTU CCA Singapore.

though the traffic sounds were drowned by the sounds of the biodiversity living higher up on the trees. Maybe the birds are louder up there. On my way back through the earth trail, I observed that the traffic sounds were still quite apparent but under a canopy of tunnel-like trees closer to the ground, it created some sort of layer and that felt quite surreal, like being in a maze or an underground longkang drain system. You don't know where you are but you know the city is above you.

Anna Lovecchio: There we go! Back you are into the drain once again, as when you were a kid!

Tini Aliman: I seem to like drains very much.

Anna Lovecchio: Yes. This a wonderful, circular way to close this conversation. Thank you Tini, it's been a pleasure talking to you.

Tini Aliman: Thank you again for having me Anna.

Anna Lovecchio: You listened to AiRCAST, a podcast of NTU Centre for Contemporary Art Singapore, a national research centre for contemporary art of Nanyang Technological University. If you want to find out more about our programmes, visit our website at www.ntu.ccasingapore.org and sign up to our newsletter. Or you can follow us on your favourite social media platforms. And of course, if you'd like to hear the voices and thoughts of our other Artists-in-Residence, do subscribe to this podcast AiRCAST is produced by NTU CCA Singapore with the support of National Arts Council Singapore.

This episode featured artist Tini Aliman in conversation with myself, Anna Lovecchio. I am also the editor of this podcast series. The Programme Manager is Kristine Tan, the Audio Engineer, Rudi Osman. The intro and the outro were composed by Tini Aliman herself with field recordings taken at different times of the day in the beautiful forest around us. This episode was recorded on the 30th of August 2021. Thank you for listening.