



Brane Zorman  
Duh dreves | Dotik  
Tree Spirits | The Touch

**STIKLENIK**



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Brane Zorman  
*Duh dreves | Dotik*



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Zvočno delo *Duh dreves* | Dotik spekulira o zvočni komponenti življenja dreves in prevprašuje preplet posameznega dela rastline s kolonijo organizmov in skupnostjo gozda. Zvočni posnetki dajejo glas življenju drevesa v njegovem letnem in življenjskem ciklu, ki se začne in konča s tišino. Tišino pred spomladanskim pretokom drevesnih sokov in tišino po uničenju zaradi klimatskih sprememb, suše, požarov.

Avtor namenja posebno pozornost dotiku drevesa; kot obliki skrbi in zavedanja sobivanja z rastlinami in destruktivnemu dotiku okoljskega uničenja. Od zvokov dotikanja debla, drgnjenja vej, drobljenja odpadlega lubja, listov, vetra v krošnjah, vode, ki napaja korenine, avtor zvočno prehaja skozi fizični obstoj drevesa. Vse tja do lomljenja vej, podiranja dreves in ognja, ki kot opozorilo pred prihajajočo sušo grobo zareže v habitat gozda.

Skladba s posnetimi in obdelanimi zvoki dreves, ki nastajajo tako znotraj samega organizma kot tudi ob dotiku človeka in okolja, ustvarja čustveno in dramatično glasbeno fabulo, nabito z naravnimi in ojačanimi zvoki, ki se energično spajajo in prepletajo. Dinamična osemkanalna prostorska postavitve vsrka poslušalca v središče zvočnega dogajanja.

Instalacija prikazuje, raziskuje in beleži spremembe električne prevodnosti, ki so posledica intenzivnega sušenja posameznih rezin debla. Prek toplotnih, električnih in nihajnih senzorjev in pretvornikov pretvarja parametre v vizualno in slišno obliko. Rezine se sušijo in pokajo. Naseljujejo jih mikrobi, plesni, drevesne gobe in v tem procesu razkrajanja spreminjajo svojo obliko. Na simbolnem nivoju nas nove nastale drevesne strukture soočajo s pomanjkanjem vode in vlage.

Zvoki drevesa so kot prisposobe verzov pesmi, besedil nenapisanih zgodb od zgodnje pomladi mladega organizma do uničenja gozdov ob suši in požarih.

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## Zapis avtorja

Začne se s tišino. V naravi je največ tišine pozimi. Drevesna debla, veje, krošnje obstanejo v mirovanju. Čakajo. Čakajo dolgo, v tišini, v spokoju, ki ga razumejo, in spoštujejo nenapisana pravila starodavnih zapisov, ki jih kot spomin nosijo v sebi. V neprekinjeni govorici fizikalnih, kemijskih in električnih komunikacij sinhronizirajo svoja stanja z aktivnostmi okolja. Analizirajo, popravljajo, obnavljajo poškodovane komunikacijske kanale. Vzpostavljajo nove vezi in prijateljstva, razvijajo strategije obrambe pred zunanji napadalci in se prilagajajo spreminjajočim atmosferskim pogojem. Nove podatke primerjajo s svojimi zapisi in iščejo možnosti, rešitve. Ves ta čas počitka, ki teče v večnih ciklih in ponavljanjih, nosi v sebi klico pričakovanja.



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Ob dvigu temperature se drevesa po (vse krajši) zimski hibernaciji prebudijo in prično črpati vodo in rudninske snovi po deblu do vej, kjer se pospeši nova rast in zdravljenje poškodb. Obseg debela se poveča za letnico.

V letnem ciklu se drevesa soočajo še s pospešeno linearno časovno komponento. Podnebne spremembe, ki jih vključujejo v svoj razvoj, so dinamični, nedokončani procesi. Okolica se brez prestanka pospešeno spreminja in vpliva na ponavljajoče se cikle življenja, kot ga opazujemo, analiziramo in poskušamo razumeti. Največja novost v opazovanju in beleženju, ki smo ji v tej rezini antropocenega časa izpostavljeni, je hitrost sprememb, ki se dogajajo kot v prehitro predvajanem filmu.

Od ekvatorja in skrajnih polov zemlje se postopoma širi vroč in sušni pas. Temperatura se dviga, toplotna obdobja se podaljšujejo, zemlja se suši. Zaradi vetra in nenadnih nevihtnih udarov in nalivov vode se debelina prsti tanjša. Ravnotežje, zavetje, vezi in povezanost med sodelujočimi v naravi se krhajo in razpadajo. Višina morske gladine se dviga in postopno poplavlja nizko ležeče obalne krajine. Na prsti se nalaga sol, ki pospeši zastrupljanje tal in odmrtnje nešteti mikroorganizmov, rastlin in dreves na teh področjih.

Drevesa in gozdovi se soočajo z velikim izzivom. Se organizmi v tako kratkem času sploh lahko prilagodijo novim bivalnim pogojem? Se bodo preselili v pasove, kjer je klima ugodnejša? Ali lahko pričakujemo eksodus življenjskih oblik, množično izumrtje ali kombinacijo obojega? V vsakem primeru se tisočletja trajajoče, dopolnjujoče in razvijajoče se ravnotežje bliskovito ruši pred našimi očmi in z nami.



Štiridesetminutno zvočno delo s posnetimi in obdelanimi zvoki dreves, ki nastajajo tako v samem organizmu kot tudi ob intimnem dotiku človeka in okolja, ustvarja čustveno in dramatično fabulo, nabito z bogastvom naravnih in ojačanih zvokov, ki se dinamično prepletajo in spajajo. Posneti zvoki so kot prisposobe ali preslikave verzov pesmi, besedil zgodb, potez oglja na platnu; slike od zgodnje pomladi mladega organizma do uničenja gozdov ob suši in požaru.



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## Dnevnik (prepis zapisov)

Marec 2020

V okolici Medvod, Sore in Trnovca izvajam prva poskusna snemanja. V treh terminih testiram snemalno opremo, analogne in vibracijske kontaktne mikrofone, ki jih preizkušam z različnimi tipi predojačevalcev. V studiu selekcioniram in arhiviram zvočne zapise ter jih analiziram s fizično izkušnjo s snemanja. Ugotovim, da sem na snemalniku kar nekajkrat napačno ocenil in brez premisleka nastavlil vhodne napetosti in tako dobil neuporabne distorzirane posnetke. Zaradi fascinacije z igranjem in improvizacije z vejami, debli, listi in tlemi tega kiksa na snemanju nisem opazil.

Na podlagi izkušenj s snemanji "preizkusi-in-testiraj" postopno bogatim arzenal metod za prihodnje terenske snemalne seanse. Vse se vrti okrog številnih kompromisov v iskanju prave kombinacije glede predmeta snemanja in opreme, ki jo imam. Prečiščen material sistematično shranim v enakih formatih in z zaporednimi oznakami. Opažam, da bo to na trdem disku zelo zajeten projekt.



## Maj 2020

V programu Cubase (zdaj verzija PRO 10.5), ki ga še od časov Atari ST uporabljam za komponiranje, postavim timeline z vsebinsko, dramaturško in dinamično strukturo. Glede na posamezne časovne dele določim zvoke, ki se bodo v njih soočali in prepletali. Tako ugotovim, katere barve zvočnih tekstur mi manjkajo, kar spodbudi razmišljanje, kje in kako bom prišel do njih. Na zemljevidu iščem lokacije in po spominu obiskujem prostore, kjer sem že bil. Rišem in postavljam bloke za prve skice notnega zapisa skladbe.

## Junij 2020

Odpravim se na jutranje snemanje v veliki rastlinjak Botaničnega vrta na lžanki, kjer je ob tem času dneva še mirno in tiho. Z različnimi mikrofoni želim posneti subtilne dotike debel, trzljaje, nihanje listov in rastlin. S prsti drgnem, praskam, objemam debela, veje, površine listov različnih oblik, vence ostrih iglic, ki ovirajo dostop predatorjem s tal. Te male in komaj opazne ostre iglice zanihajo kot leseni vibrafon ali kovinski ksilofon. Z vsako potezo, gibom, dotikom odkrivam bogastvo zvokov, ki jih posnamem z zelo blizu postavljenim mikrofonom. Njihov zven slišim v prostoru in hkrati v slušalkah. Ojačana realnost in ojačan zvočni signal. Niz trenutkov v interakciji dveh organskih in živih snovi ostane zabeležen v statičnem zvočnem zapisu. Po izkušnji tega snemanja, na podlagi prejšnjih posnetih materialov in fizične izkušnje gibanja v širokih in ozkih prostorih med rastlinami v ambientu dobi skladba v projektu *Duh dreves* podnaslov *Dotik*.

## Oktober 2020

Za Bežigradom žagajo srednje visoko drevo, ki je padlo v vetru. Dogovorim se, da mi iz debela narežejo nekaj rezin različnih debelin, ki jih bom uporabil za instalacijo. Odstirajo se mi nove perspektive za materializacijo dela zvočne skulpture. Naložim jih v klet, kjer se med zimsko odsotnostjo med rezinami razvijejo plesni in nekatere rezine nerazdružno spojijo. Oblike življenja, ki vzniknejo tako rekoč iz nič, njihova moč, vztrajnost so nepojmljivi.





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Na obrobju Ljubljane, v Podutiku, na poti na Katarino, v gozdovih v okolici Janč dopolnjujem banko zvočnih zapisov. Za mozaik skladbe iščem v oddaljenih prostorih, na jasah, v jamah in na pobočjih gozdov, na drevesih, deblih, lubju, odlomljenih in padlih vejah posebnosti in snemam res zanimive materiale.

V meglenem jutru fotografiram drevesne kompozicije, detajle debel, vej. Lebdenje, tišina in v sivo reducirani barvni sliki lebdi občutek ustavljenega časa. Časovne rezine fotografij poudarjajo veličastnost in spoštovanje do rastlin in dreves, ki ustavljajo proces aktivnega bivanja in odhajajo v zimski spanec.

Marec 2021

Zadnja snemalna seansa na terenu. Odpeljem se v Trzin v gozdove, ki se razgrinjajo proti Rašici. Z gozdarji se vzpenjam po novi strmi gozdni poti, ki jo je med smrekami, bukvami in hrasti v pobočje vrezal velik traktor, ki v dolino vleče odžagana debela. Na vrhu vzpetine na različni poziciji postavim dva snemalca in štiri mikrofone, usmerjene na prostor, kjer bo padla smreka. Dobim štiri zelo dobre in natančne posnetke celega procesa: od zabijanja klinov, žaganja in odtrganega dela debla, do padca in šelestenja vej, ko se pokošena smreka na tleh umiri.

April 2021

Močni vetrovi, ki kot posledica velikih temperaturnih sprememb nastanejo pred in med prvim sneženjem v aprilu, vrtinčijo in močno zibajo še neozelenele veje. V malem parku za Bežigradom z dvema kontaktnima mikrofonom posnamem zavijanje in močne, turbulentne resonančne udarce vetra v krošnje in udarjanje še neozelenelih vej ob druge veje.

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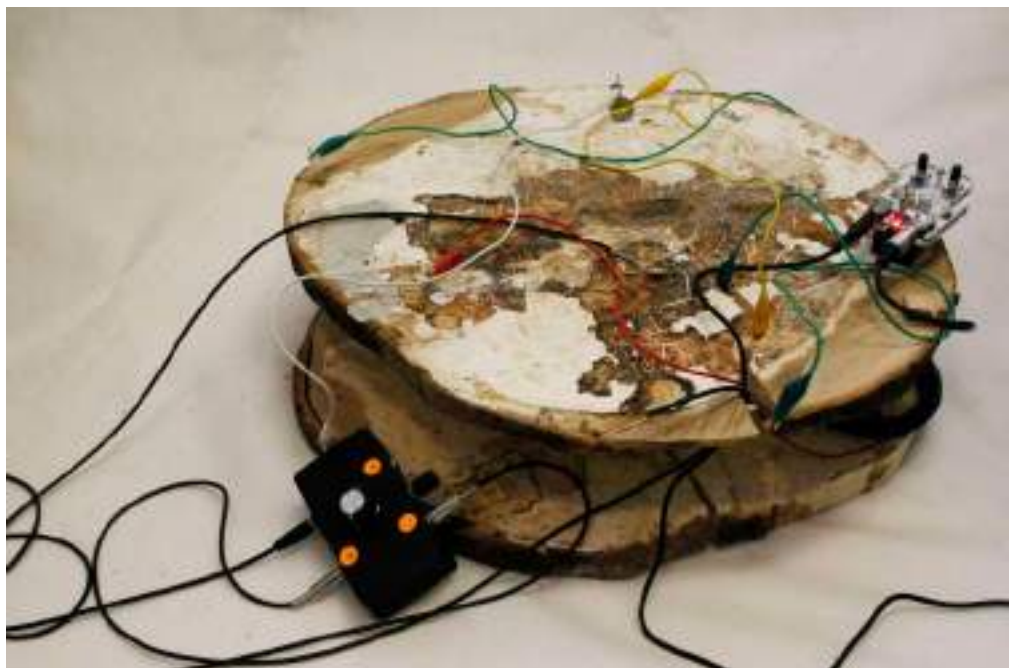
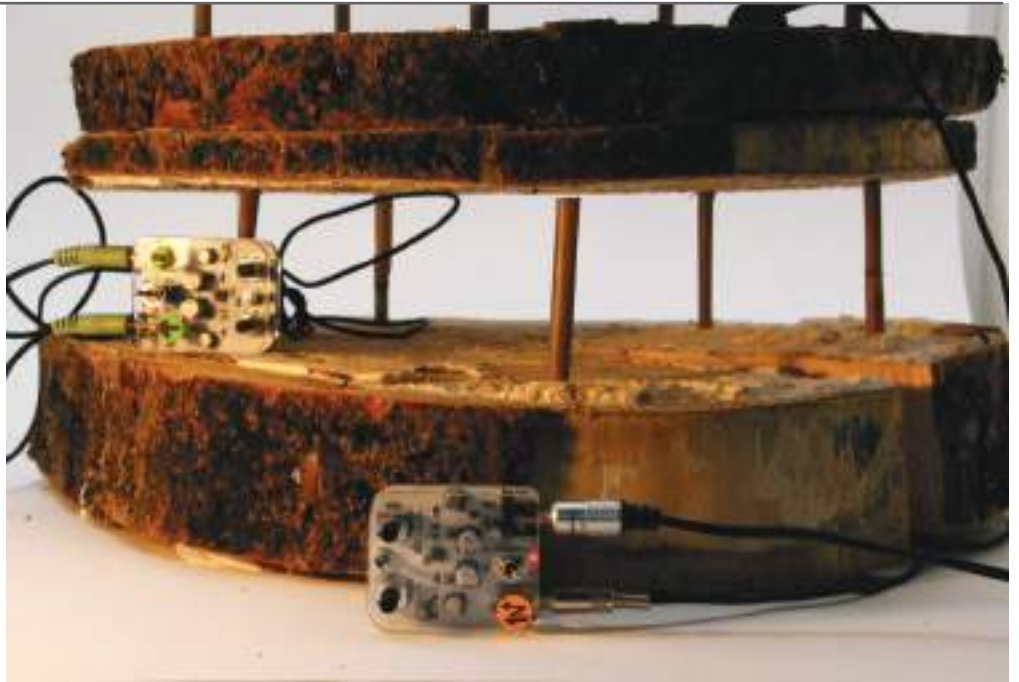
## Beleženje fizikalnih in kemijskih sprememb

Instalacija je sestavljena iz posameznih, nekaj centimetrov debelih drevesnih rezin, ki kot horizontalni časovni presek minulega časa izpostavijo starostne krožne letnice. Na obeh straneh rezin so se v procesu sušenja in razkrajanja naselile in zaživele plesni, gobe in mikroorganizmi.

V trenutni razvojni fazi je instalacija sestavljena iz rezin debela javorja, ki so v vmesnem prostoru povezane z lesenimi distančniki.\* Konstrukcija deluje kot stolp in ponazarja prostorske preseke, v katerih v živem drevesu po kapilarah (xylem in phloem) potujejo voda, minerali in hranljive snovi od korenin do listov. Instalacija je postavljena v korito z vodo, ki jo vpija vanjo potopljena debelna rezina. Ko vodo v koritu počrpa, se prične recipročni proces in rezina se začne sušiti. Pri obeh procesih se rezina zaradi fizikalnih sprememb razteza in krči, kar sproža napetosti v tkivu. Manifestirajo se kot poki in subtilni nevidni premiki, ki se v impulzih porazdelijo prek cele postavitve, ki v tem primeru deluje kot analogni ojačevalec oz. resonator.

Na več delih instalacije so v debelne rezine prek kovinskih globinskih podaljškov vstavljeni vibracijski kontaktni mikrofoni. S posebnimi občutljivimi komponentami v signalnih predojačevalcih zaznajo tudi najtišje premike, raztezanja in sprostitve v drevesnem tkivu. Povezani so z zvočniki, ki v okolico prenesejo ojačano informacijo.

V naslednji fazi senzornega spremljanja fizikalnih in kemijskih sprememb v debelih rezinah bodo postavljeni dodatni senzorji, ki bodo merili druge nivojske spremembe. Nabor senzorjev bo v realnem času beležil spremembe električne prevodnosti, upornosti in nihanja vlage, ki so posledica najprej vpijanja vode in potem sušenja posameznih rezin. Toplotni, električni in nihajni senzorji, vmesniki in pretvorniki bodo impulze pretvarjali tako v vizualno (graf) kot slišno obliko. Zvok sprememb se bo združil z vnaprej pripravljeno osemkanalno skladbo in ji dodal svojevrstno organskost in nepredvidljivost. Programska oprema, na katero bodo povezani senzorji, bo tekla na Arduino platformi.



Grafična partitura

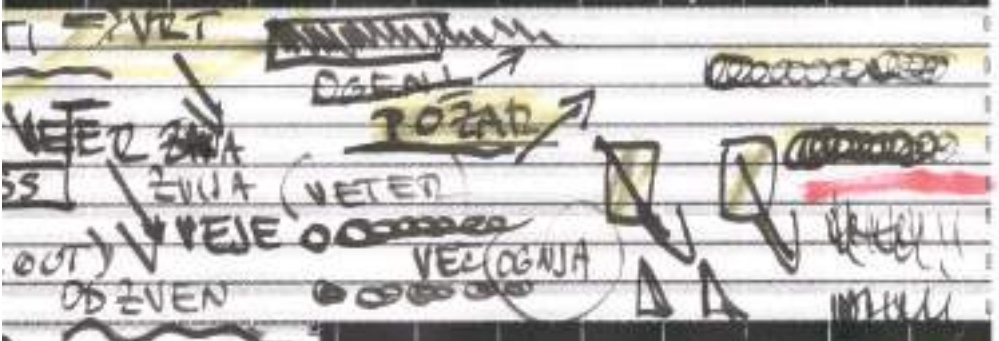
The image shows a handwritten musical score on ten staves. The notation is highly abstract and includes various symbols, lines, and text annotations. Key elements include:

- Staff 1:** Annotations include "DANIGLE/ELEMENTI", "INTRO/INTRODUCTION", "NAPETOST", and "CRESHI/FORCE".
- Staff 2:** Contains the word "MIL" and "PACAKOVANE".
- Staff 3:** Features a wavy line and the word "CAS" circled in red.
- Staff 4:** Includes the word "NETER" and a diagram with a zigzag line.
- Staff 5:** Shows a sequence of notes with "XXX" above and "XIXX" below.
- Staff 6:** Contains the word "DRGNENJE" circled in red.
- Staff 7:** Features a large arrow pointing right and the word "VEJE" circled in red.
- Staff 8:** Includes "UPOGIBI" and "LIST".
- Staff 9:** Contains "LISTI" circled in red, "ART-SUB BAS", "MODULAR", and "(SPACE)".
- Staff 10:** Includes "SUB SUB", "SPACE", "PROB", "LISTI", "SUSPEND", "HALION", "SOVE SOVE", "SOM", "ERAK", and "(OLICE) (STACC)".

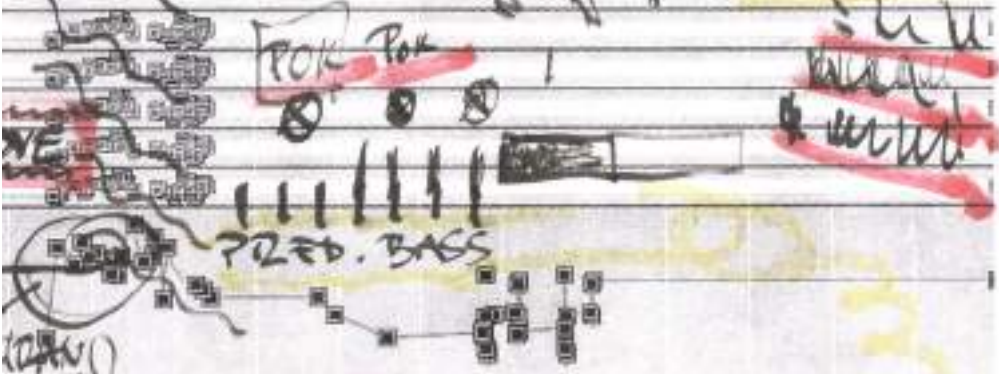
The score is heavily annotated with arrows, boxes, and red highlights, suggesting a complex structural or performance-related plan.



KOMUNIKACIJA | OGENI  
DEST



GRNADA





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Brane Zorman  
*Tree Spirits | The Touch*



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The soundwork *Tree Spirits | The Touch* reflects on the life of a tree, speculating on its acoustic component, and explores the interaction of an individual part of a plant with the colony of organisms and the forest biotic community. The sound recordings give voice to the existence of a tree in its annual and life cycles which begin and end in silence. The silence anticipating the springtime resurgence of sap flow, and the silence of destruction caused by climate change, drought, and fires.

The artist zeros in on the touch; touch as an expression of genuine concern and awareness of the coexistence with plants, and a destructive touch of environmental devastation. The sounds of touching a tree trunk, branches rubbing against each other, the crushing of loose bark, the foliage, the rustling of trees in the wind, water drenching the roots – an acoustic journey through the physical existence of a tree. All the way to branch breaking, tree falling and a fire, a warning of the upcoming drought which is always a hard blow to a forest habitat.

The composition with the recorded and processed tree sounds, produced both within the organism as well as when touched by a human or the environment, builds an emotional and dramatic narrative charged with the natural and amplified sounds comingling and entwining. A dynamic 8-channel installation pulls the listener in the very centre of a sound happening.

The installation demonstrates, investigates, and records the changes in the electrical conductivity, which are the result of the intensive drying process of the individual tree cookies (sliced portions of a tree trunk), converting the parameters – through heat, electrical and oscillation sensors, and converters – in the visual and acoustic forms. The cookies dry up and crack. They are colonised by microbes, mould, and fungi, and in the process of decomposition change their forms. Symbolically, these newly formed tree structures confront us with the shortage of water and moisture.

The sounds of a tree are somewhat the metaphors of the verses in a poem, the texts of never written stories from the early spring of a juvenile organism to the forest destruction caused by drought and fires.

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## Artist notes

It all starts with silence. In nature, winter is the time of silence. Tree trunks, branches, crowns – they are all at a standstill. Waiting. They wait for a long time, in silence and quietude, which they embrace because they respect the unwritten rules of the ancient codes inscribed deep in their memory. They constantly communicate by sending physical, chemical, and electrical signals to synchronise with the environment. They analyse, repair, restore damaged communication channels, establish new relationships and alliances, develop defence strategies against external attacks and adapt to the changing atmospheric conditions. They compare new data with the old codes, continually searching for new possibilities and solutions. Coming around in the eternal cycles and reiterations, this time of quietude holds within a seed of expectation.



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With the rise of the temperature, the trees wake up after (increasingly shorter) winter hibernation, and water and mineral nutrients absorbed from the soil are transported up the trunk to the branches, accelerating new growth and wound healing. The trunk diameter is increased by the annual (growth) ring.

In their annual cycle, the trees also have to deal with an accelerated linear temporal component. They try to adapt and become more resilient; however, climate change is a dynamic and ongoing process. The natural environment is subject to constant and accelerated change, which affects repetitive life cycle that we observe, analyse, and try to understand. The most shocking “new development”, which is observed and recorded in this slice of the Anthropocene, is the speed of change – as if played fast forward.

A hot and dry climate gradually expands, the temperature is rising, warm periods are extended, the soil is drying out and its depth is thinning because of wind and sudden storms with high intensity rainfall. The equilibrium, the refugee, close ties, and interdependent relationships among the partners in the project nature are crumbling and falling apart. As sea levels rise, low-lying coastal areas are increasingly inundated with saltwater, contaminating the soil and triggering countless microorganism, plant and tree die-off.

The trees and forests are faced with a huge challenge. In such a short stretch of time, can organisms adapt to new living conditions at all? Will they migrate to the regions with more favourable climate conditions? Can we expect exodus of life forms, a mass extinction, or a combination of both? Established, maintained, and evolving for thousands of years, a fragile equilibrium is, on our watch, rapidly breaking up in front of our eyes.





A forty-minute long soundwork with the recorded and processed tree sounds, produced both within the organism as well as when touched by a human or the environment, builds an emotional and dramatic narrative charged with the natural and amplified sounds which dynamically come together and intertwine. The sounds recorded are somewhat metaphors or transformations of the verses in a poem, texts of stories, or the strokes of chalk on the canvas; the images from the early spring of a juvenile organism to the destruction of forests caused by drought and fire.



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## Diary (transcription of notes)

March 2020

I make the first test recordings in the surroundings of Medvode, Sora and Trnovec. In three sessions, I test the recording equipment, analog and vibration contact mics with different types of preamps. I select and archive the audio recordings in the studio, analyzing them through the physical experience of the actual redording. I realize to have miscalculated and recklessly set the input voltage on the recorder, having made some completely useless and distorted recordings. Fascinated by the playing and improvisation with the branches, trunks, leaves and soil, it just slipped me by.

Based on the “try-and-test” experience, I gradually expand my arsenal of methods for the future field recording sessions. Everything is about making compromises in trying to find the right combination in terms of the subject of recording and the equipment I have. I systematically save the refined recordings in the same formats and in consecutive order. Judging from the hardware, it seems to be quite a project.

May 2020

In the Cubase music production software – I’ve been using it for composing since the times of Atari ST – I set a timeline and define the content, dramaturgical and dynamic stucture of the score. Based on the individual segments, I determine the sounds to be confronted and entwined. It’s a way of finding out what colors of sound textures are missing, which makes me think where and how I’ll get them. I look for locations on the map and visit in my memory all the places I’ve been to. I draw and build blocks for the first sketches of the music notation.

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June 2020

I go to the Botanic Garden on the Ižanka to make my early morning recordings. At this time of day, everything is still peaceful and quiet. With different mics, I want to record subtle touches of trunks, the twiches, the swinging of leaves and plants. I rub with my fingers, scratch, hug the trunks, the branches, surface of the leaves of various shapes, the clusters of sharp needles that prevent the access to predators from the ground. These tiny and hardly visible sharp needles vibrate like a wood vibraphone or metal xylophone. With every single move, gesture and touch, I discover the wealth of sounds that I record with a mic placed very close. I can hear their tone with a naked ear and in my headphones. Reality and audio signal – both amplified. A series of moments in the interaction of two organic and living beings remains registered in a static audio recording.

Based on the experience of the current recording and the materials recorded previously and the physical experience of moving in large and narrow spaces among the plants, I subtitle the composition in the *Tree Spirits* project *The Touch*.

October 2020

They saw a medium high tree in Bežigrad that fell down in the wind storm. I make an arrangement with the workers to cut several wood slices of various thickness that I'll use for the installation. I come up with new ideas regarding the materialization of a part of the sound sculpture. I put the cookies in the basement where – in the absence of winter – mold grows, binding some of them together forever. The forms of life that sprout out, virtually, from nothing, their strength and persistence are remarkable.



On the outskirts of Ljubljana, in Podutik, on the way to Katarina, I build up my bank of audio recordings in the woods around Janče. To complete the mosaic of the composition, I look for particularities on the remote locations, in the clearings, caves and the wood-covered slopes, on the trees, trunks, bark, broken and fallen branches, recording truly fascinating material.

In a dusty morning, I take pictures of tree compositions, the details of trunks and branches. Suspension, silence and a feeling of time standing still linger in the picture reduced to the shades of grey. Time slices of the photographs accentuate the magnificence and respect for plants and trees which put the process of active life “on hold” and go dormant.

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March 2021

The last field recording session. I drive to Trzin to the woods extending towards Rašica. With the foresters, I walk new steep roadway, which was, among spruce, beech and oak trees, cut in the slope by a large tractor hauling the logs downhill. Reaching the top, I place, to two different positions, two recorders and four mics pointed towards the landing spot of the spruce. I get four impeccable recordings of the entire process: from hammering wedges into the trunk, sawing and breaking of the trunk, to the landing and the rustling of branches while the spruce settles on the ground.



April 2021

Strong winds caused by temperature changes before and during the first snowfall in April, sway and wobble leafless branches. In a small park in Bežigrad, I record with two contact mics the hissing and heavy turbulent resonant blows of the wind against the crowns, and the striking of barren branches against other branches.



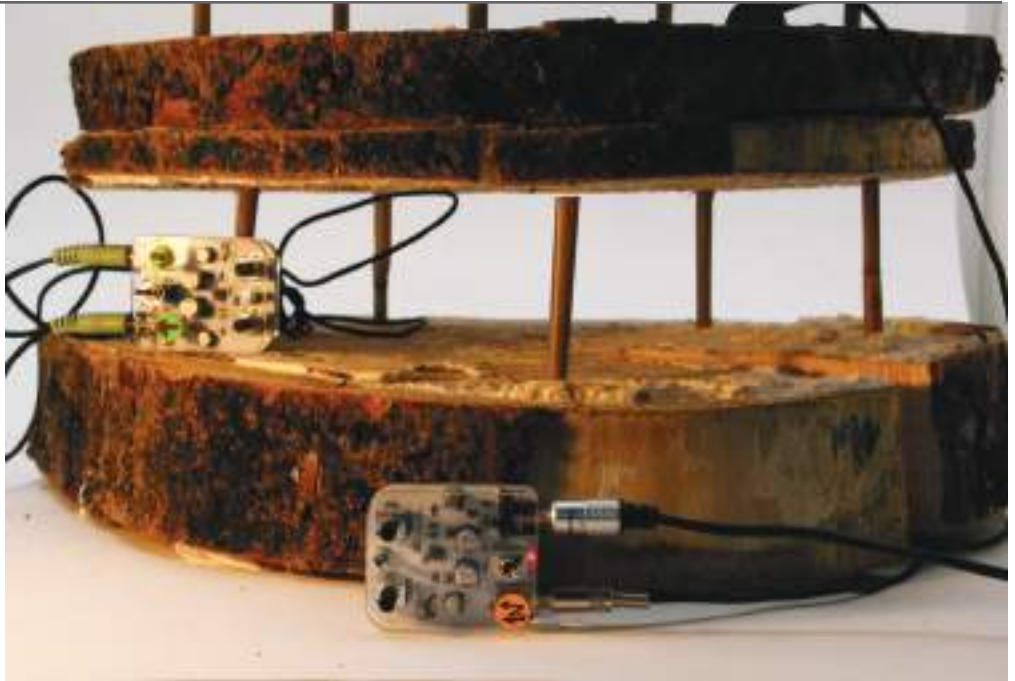
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## Recording of the physical and chemical changes

The installation is composed of individual, few-centimeter thick wood slices which, like a horizontal timeline of the past, expose the annual growth rings. In the process of dehydration and decomposition, mould, fungi and microorganisms have populated both sides of the wood cookies.

At the current development stage, the installation is made of the maple wood slices connected with wood spacers.\* Resembling a tower, the construction symbolizes spatial intersections in which, in a living tree, the vessels (xylem and phloem) transport water, minerals and nutrients from roots to leaves. The installation is put in a trough filled with water that is being absorbed by a slice immersed into it. When there is no water left, the process is reversed and the slice starts drying. In both cases, the slice, due to the physical changes, expands and contracts to release tension. Tension release is manifested in cracks and subtle invisible movements, generating electrical impulses that are propagated throughout the installation which, in this case, acts as an analog amplifier (resonator).

At several points of the installation, vibration contact mics are inserted in the wood slices through depth extensions. Special sensitive components of the preamps allow the mics to detect even the quietest movement, expansion and relaxation in the tissue. They are connected with the speakers that transmit the amplified information into the environment.



The next stage of monitoring the physical and chemical changes in the wood slices will see the placement of additional sensors. A set of sensors will record, in real time, the changes in the electrical conductivity, resistivity, and humidity fluctuations in the individual wood slice, consequent to the water absorption which is followed by the process of drying. The heat, electrical and oscillation sensors, interfaces and converters will translate the impulses in the visual (graph) and acoustic forms. "The sound" of changes will merge with the eight-channel composition, adding a unique organicity and unpredictability. The sensors will be connected to software running on the Arduino platform.

\*In the installation, the spacers do not serve the transportation of water but merely illustrate its flow path.

Graphic score

The image shows a page of handwritten notes on lined paper, organized into a grid-like structure. The text is written in black ink, with some words highlighted in yellow or red. The notes include:

- Top Left:** "TO ANGLE / ELEMENT" and "INTRO / INTRODUCTION".
- Top Right:** "CRESH / FORCE".
- Middle Left:** "NETERZ" (underlined), "T X X X", and "X X X X".
- Middle Right:** "NAPETOST", "MIL", "PACAKOVANJE", "CAS" (circled in red), and "(DRONIJE)".
- Bottom Left:** "VEJE" (underlined), "LIST", "SUB SUBS", "PROB", "LIST", "MALION", "SOVE SOVE", and "(IOLICE / STACC)".
- Bottom Right:** "UPOGIBI", "LIST", "ALT-SUB BAS", "MODULAR", "(SPACE", "L'SPACE", "SUSPEND", "ORAW.", "SUM", and "ERAK".

The page is filled with various diagrams, including arrows, lines, and small sketches, which appear to be part of a larger project or study. The handwriting is somewhat messy and expressive.



KOMUNIKACIJA / OGENJ  
DEST

NEKAJ?

HR

STRAH

PITICE

PADAJO  
FALLING

~~ummmmmmmmm~~

~~ummmmmmmmm~~

SVET

~~ummmmmmmmm~~

OGENJ

POZAD

VEČER

VEČER (VETEN)

VEJE

VEČ (OGNJA)

OBZVEN

ORATOR / ORNADA

POK

PRED. BASS



Steklenik is hosted by the Greenhouse Tivoli  
Cesta 27. aprila, Ljubljana

II CONA



Artist: Brane Zorman

Consulting: Valentina Cvetkovič, Boris Semenič

Vibration sensor design: Gregor Krpič

Fieldwork (Trzin): Morales d.o.o., Rok Rucigaj, Boštjan Divjak

Photo: Brane Zorman, Irena Pivka

Slovenian editing and translation: Melita Silič

Thanks: Zavod Kersnikova 4

The artwork was developed for Steklenik, gallery for sound, bioacoustics and art.

Locations: Steklenik, Gallery for Sound, Bioacoustics and Art,

MGLC, Švicarija, 3rd programme of Radio Slovenia – Ars programme

Production: Cona, 2020/2021

Co-production: University Botanic Gardens Ljubljana

[www.cona.si](http://www.cona.si)

[www.steklenik.si](http://www.steklenik.si)

[www.botanicni-vrt.si](http://www.botanicni-vrt.si)

CONA is supported by the Municipality of Ljubljana, department of culture

The Steklenik project is supported by the Ministry of Culture.



Mestna občina  
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REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA UPRAVNO  
POSREDOVANJE

# STEKLENIK

Steklenik gostuje v Rastlinjaku Tivoli,  
Cesta 27. aprila, Ljubljana

## II CONA



Botanični vrt  
University of Ljubljana  
Univerza v Ljubljani

Umetnik: Brane Zorman

Svetovanje: Valentina Cvetkovič, Boris Semenič

Izvedba vibracijskega senzorja: Gregor Krpič

Delo na terenu (Trzin): Morales d.o.o., Rok Rucigaj, Boštjan Divjak

Fotografija: Brane Zorman, Irena Pivka

Lektura in prevod: Melita Silič

Zahvala: Zavod Kersnikova 4

Delo je razvito za galerijo Steklenik, galerija za zvok, bioakustiko in umetnost.

Prizorišča: Steklenik, galerija za zvok, bioakustiko in umetnost,

MGLC, Švicarija, 3. program Radia Slovenija – program Ars

Produkcija: Cona, 2020/2021

Koprodukcija: Botanični vrt Univerze v Ljubljani

[www.cona.si](http://www.cona.si)

[www.steklenik.si](http://www.steklenik.si)

[www.botanicni-vrt.si](http://www.botanicni-vrt.si)

Program CONE podpira Mestna občina Ljubljana, oddelek za kulturo,  
projekt Steklenik podpira Ministrstvo za kulturo RS.



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